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# THE CONDOR

A Magazine of Western  
Ornithology

Volume XX

March-April, 1918

Number 2



COOPER ORNITHOLOGICAL CLUB

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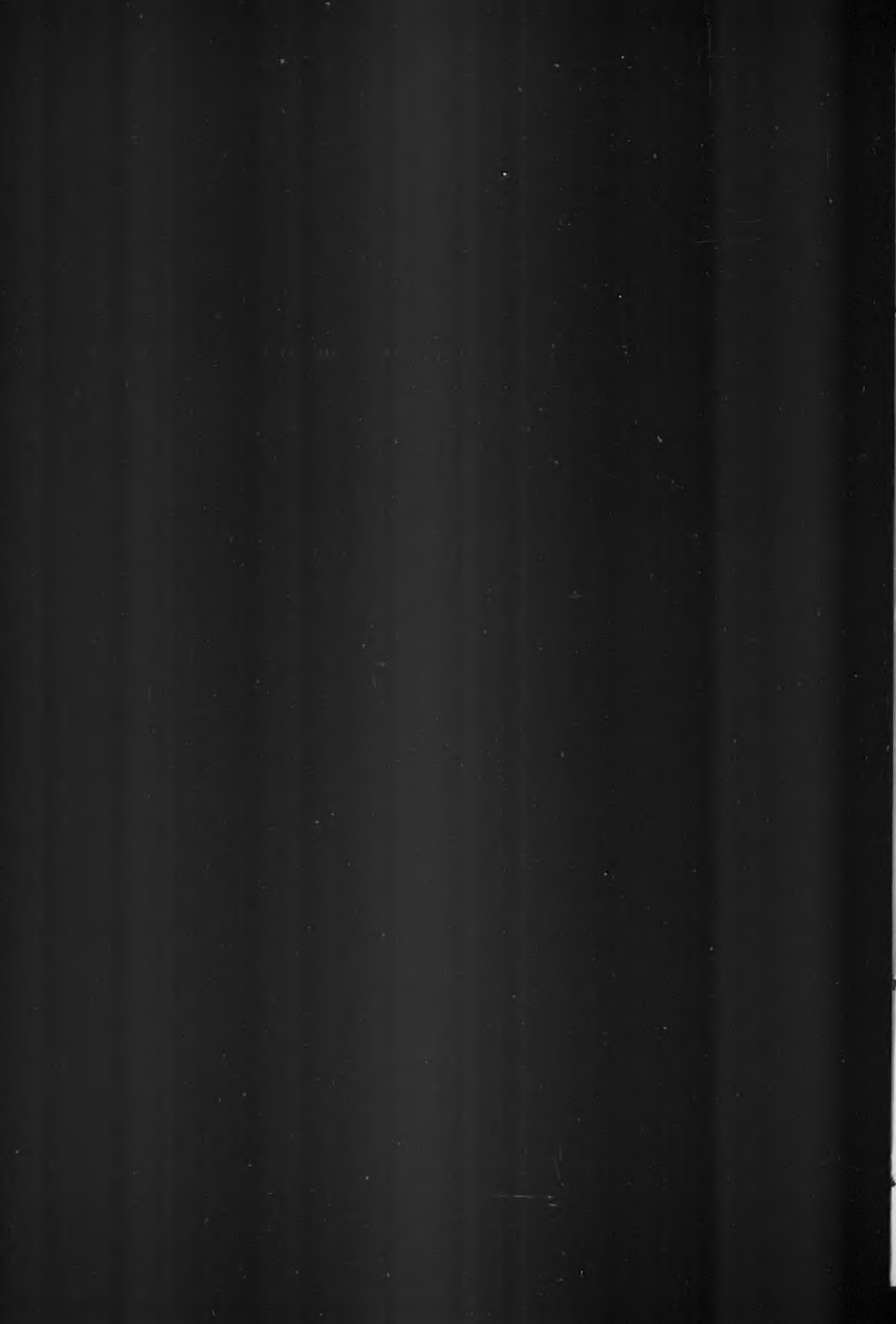
Entered as second-class matter February, 1908, at the post-office at Los Angeles (Hollywood Station), California, under Act of Congress of March 3, 1879.  
 Issued from the Office of THE CONDOR, care E. D. Dietz, First National Bank, Hollywood, California

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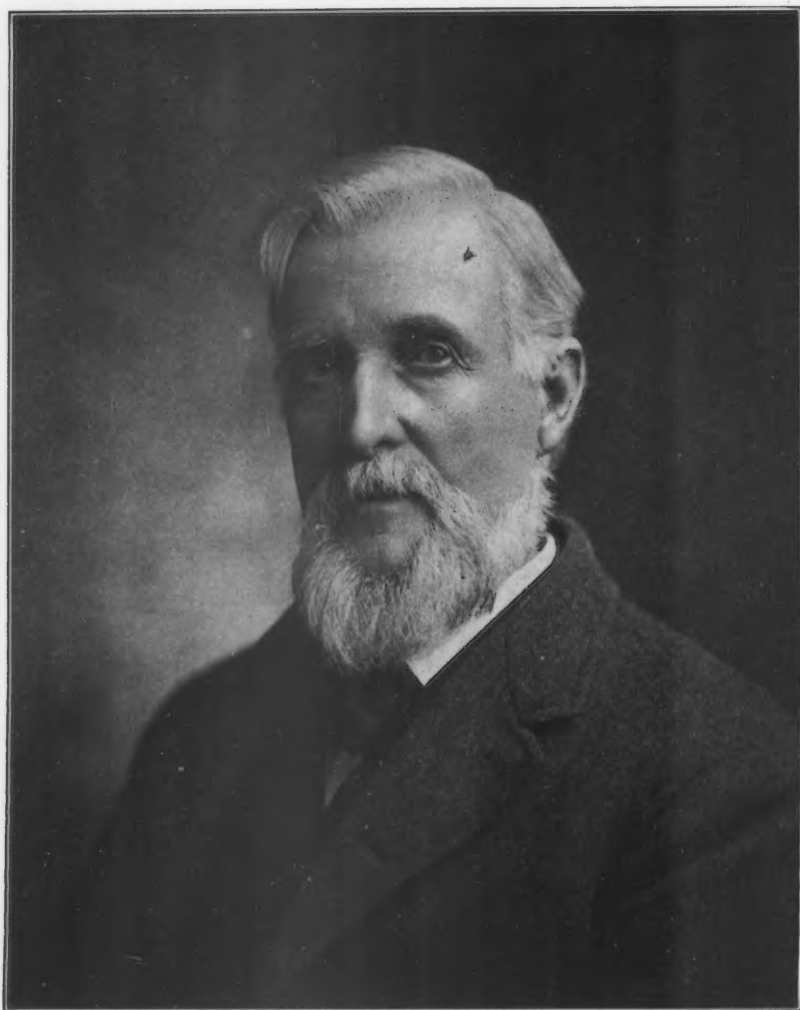
No. of Copies	2 pages	4 pages	8 pages	12 pages	16 pages	Cover and Title
25	\$ .75	\$1.25	\$2.25	\$3.50	\$4.50	.75
50	1.00	1.50	2.50	4.00	5.00	1.00
75	1.15	1.75	2.75	4.50	5.50	1.25
100	1.25	2.00	3.00	5.00	6.00	1.50











*L. Belshing*

# THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



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IN MEMORIAM: LYMAN BELDING

By WALTER K. FISHER

WITH PORTRAIT

LYMAN BELDING, the last of the Pioneer ornithologists of California, and an Honorary Member of the Cooper Ornithological Club, died at Stockton, California, November 22, 1917, at the age of eighty-eight years and five months. For a considerable period his strength had been gradually failing, and his death was due to the infirmities of his advanced age. He was the oldest American ornithologist.

Although for more than twenty years Mr. Belding took a leading part in the ornithological work of the state, it is much to be regretted that he was personally known to so few of the younger ornithologists who have now taken his place. This was partly due to his active work having ended before the present generation's began, and partly to his having lived in retirement away from centers of ornithological activity. Although he seemed somewhat diffident he was nevertheless very genial and was not averse to making new friends. To those who had won his confidence he was greatly attached. His home in Stockton was the rendezvous of the Old Friends Club, a small coterie of prominent pioneer men who used to gather for a sociable game of whist, of which Mr. Belding was very fond. So far as I am aware he attended but one meeting of the Cooper Club, although he was always greatly interested in its welfare. In the "downy" stage of THE CONDOR he helped its growth by encouragement and by contributions of manuscript and money.

Mr. Belding was a naturalist of the old school. He was a born sportsman and his love of nature revealed itself in early childhood. It is not clear whether his more serious interest in natural history was the outcome of his devotion to

gun and rod or whether it was of independent growth, simply another manifestation of those boyhood traits which made the autumn woods an irresistible allurements and the quest of partridge eggs a treasured adventure. I am much inclined to the latter view. Of the deeper nature of the man, certainly a prominent characteristic was independence, and a love of the freedom which is associated with life in the open. At bottom I believe it was largely the aesthetic sense—an esteem for the beautiful—which drew him afield. Something there was of the artist in him, much of the musician, certainly a touch of the poet. He confided to me once that it would have given him intense pleasure to be able to write the poems he *felt*. He enjoyed music and pictures. With it all he owned a vein of quiet, somewhat whimsical humor.<sup>1</sup>

Here was a man of finer fibre, simple in tastes, appreciative, and gentle. He was keenly sensitive, almost "temperamental", and strongly reacted upon by environment, yet seemingly unaware of the fact: no wonder that he sought the hills, and a refuge in his gun and rod. Such a man would find unlimited zest in matching his wits against a wary trout, or in waiting and watching in the brooding quiet of a dark fir forest. Amid such scenes his happiest days were spent, and in such pursuits the *real* Belding found expression.

At odd moments during the last few years of his life, Mr. Belding jotted down reminiscent notes of his earlier days. Originally written for relatives, and for the friends who suggested the work as a pastime, this autobiography contains much that is of general interest. In the following pages I have let Mr. Belding tell his own story as fully as the limitations of space would permit, but it has been possible to reproduce only a relatively small part of the manuscript.

"I was born June 12th, 1829, at a locality known as West Farms [Massachusetts], on the west side of the Connecticut River, opposite Amherst College. My memory does not go back quite so far, but I have seen it recorded in the old family Bible. \* \* \* When I was four years old I was sent to school which was near our home. Not long afterward I got my ears boxed for whispering to another small boy.

"Amherst College, Mount Tom, Mount Holyoke, and other interesting points were in plain view of our home. I often admired Amherst College when the sun shone on its windows. There was an extensive forest on the west border of our farm, in which I often wandered when I was five or six years old. An uncle and his family lived on the other side of it, a mile or two from our home. One day I went alone, unknown to my parents, following a narrow path to my uncle's, often wandering away from the path in search of partridge eggs. I was not allowed to stop long at my uncle's, but was hustled into a buggy and taken home, much to the relief of my parents. I was born with a sense of direction and have never been lost.

"I was naturally honest, but could not resist temptation. My first act of dishonesty was when I was five or six years of age and found a handful of chestnuts in the drawer of one of my father's workmen, ate two or three of them, and went out of the room they were in, not intending to eat any more. But I soon went back and ate a few more and continued these visits until I had eaten all of them, although I struggled hard to keep away.

<sup>1</sup>In sending me, in 1903, the photograph which is here reproduced, he remarked with amusement on the excellent likeness of the fly which obtruded itself into the portrait. It was a certain relish for the unusual which led him to have this negative finished for his nearer friends.

"When I was about seven years old, our family moved to Kingston, Wyoming Valley, Pennsylvania. The mountains surrounding the valley were well timbered, and in autumn the frost colored the foliage rich golden and scarlet, something we never see in California, excepting a few scattered trees and plants that are tinted by the frosts of autumn in the High Sierras.

"My happiest hunting days were in autumn. The passenger pigeon was very common, and its cheerful *ete-tete-tete*—, as it rattled down acorns upon which it was feeding, was delicious music to me. I have seen millions of pigeons in a single day in spring, when after their usual northern migration, they were driven back by a cold storm.

"One morning early, I was on Ross Hill near Kingston, looking for a deer, the track of which I had seen in the snow the previous day. Soon after the sun appeared, millions and millions of pigeons flew south over the valley. The flight continued into the afternoon, when patches of bare ground began to appear affording the pigeons feeding grounds. When driven south by cold spring storms, the north branch of the Susquehanna River was a favorite route. The following day I saw the deer I was looking for. It appeared to be pure white, though I was too far from it to be positive. It swam the river and landed about a mile below Wilkesbarre, and was shot by two hunters who appeared to be hunting quail.

"Before I got a gun I often wandered in the woods, sometimes getting home late in the evening and on one occasion my parents had looked in the open well and other places for me.

"When I got a gun I was out early and late with it, neglecting school, though I worked faithfully on our farm where the crops needed me, excepting when chestnuts were ripe on the hills I would occasionally steal away and go to the hills for chestnuts.

"I must have been a very unpromising boy, but was enjoying life and gaining strength and endurance, just what I needed, being naturally frail. I was in a cobbler's shop with some boy companions and told them I intended to go west and hunt buffalo when I got big enough. The cobbler said, 'You will never leave this valley as long as your head is hot.' This cobbler's partner said: 'A boy with a gun and fiddle would never amount to much.' I had both a gun and a fiddle. Fortunately I was an excellent reader and we had some good books.

"I read with great interest Rollins' *Ancient History*, Josephus' description of the capture of Jerusalem by the Romans under Titus and was especially interested in successful warring expeditions like those of Alexander the Great. I did not then realize the horrors of war. Later, when my sister was in Paris and wrote me of the Louvre, and also mentioned Napoleon Bonaparte, I replied that I would rather have been Shakespeare than Napoleon. I no longer admired military heroes."

When a boy, he relates that he subscribed for Alexander's Messenger, a Philadelphia weekly, and greatly admired its crude wood-cuts. He had an ambition to be an artist, and while still quite young he had a box of water-colors, and could draw horses, deer, and other animals and objects.

In the winter he caught bob-whites by falling lengthwise, on his back, upon the soft snow and packing it upon them after they had plunged into it at the end of a flight. Later, when about sixteen years old, while hunting near Harvey's Lake, a deep mountain lake surrounded by virgin forest, he narrates that

he sprained his ankle chasing two gray squirrels which were rare although the black of the same species was very common. "When I was a small boy I have seen several hundred black-squirrels which had been killed in hunting matches, and only two or three gray squirrels were among them."

In the autumn of 1846 he was severely ill for a month with typhoid fever. After his recovery from this, intermittent fever kept him so debilitated that his doctor advised a sea voyage. Accordingly, after journeying first to Boston and thence to New Bedford, young Belding, in his twenty-second year, was shipped as a novice on the Arctic whaler, *Uncas*, July 5, 1851.

"The shipping master wanted to know what I was going to sea for and I told him I wanted adventures that I could tell my children, and he laughed. A smart Alec advised me to take an umbrella along. I must have looked too frail for a sailor. The most of our crew were land-lubbers, and when we got into the Gulf Stream we ran into a severe gale. During the night all hands were called to shorten sail. It was a severe trial for a lot of boys who had not yet got their sea legs, but there was no flinching. With the help of a few experienced men the work was done all right. In coming down from aloft we went cautiously from ratline to ratline, until Burns, the third mate, shouted to those below him: 'Don't squeeze all the tar out of the standing rigging.'"

This voyage lasted three and a half years. The *Uncas* visited the Azores, Cape of Good Hope, St. Paul or Amsterdam Island, New Zealand, and reached Bering Straits, July 1, 1852, touching at Guam on the way. During this first year Lyman Belding became a seasoned whaling man and gathered a goodly store of adventures. At the Cape of Good Hope the *Uncas* was mistaken for a pirate ship. Later they ran into a school of whales and killed ten or a dozen. "Nothing worthy of note," he writes, "occurred until we were at the edge of the Sea of Japan, and were struck by a typhoon. Our trypots were full of blubber and boiling oil, and no time was lost in bailing it out lest the careening of the ship cause it to slop over on the deck."

"During our cruise in the Arctic we went as far north as the 73d degree, were successful in capturing bowhead whales, several times working forty-eight or fifty hours without sleep or rest, the sun being above the horizon continuously." When the sun went below the horizon the *Uncas* turned south.

Of their stop at Petropavlovski, a Russian penal colony, he remarks: "Bear tracks were plentiful by the little brook where we got water. The bears were attracted by huckleberries. A. M. Abbot of Boston, supercargo of a ship in port, passed us on his way down the bay. He had two Russians with short scythes and two large dogs in the boat with him. He said the dogs would bring the bear to bay, and the Russians would hamstring them with their scythes, a way of hunting that would be a failure with grizzlies. I noticed that Mr. Abbot had a gun."

On their arrival at Honolulu, late in the year, they found a hundred and fifty whaling ships. Life on the *Uncas* having become well-nigh unbearable, Belding deserted, and after hiding for three weeks, got to sea on the *Julian* of Martha's Vineyard. During his enforced "seclusion" he spent a day in a trypot, or kettle, of about five barrels capacity. "I went into it," he writes, "before daylight, with the tarpaulin raised to admit air. I was very uncomfortable in my cramped position, lying on several angular pieces of wood which were thrown in to keep me above several inches of bilge water, and a tropical sun made it almost unendurable, but I remained until night, and when I got



out of the trypot I could hardly stand. Another time, when the kikos (police-men) came I went over in the head, climbed down the anchor chain, and swam to a nearby ship, where one of her crew gave me dry clothes and secreted me. During those twenty-one days I spent most of the time in ships' holds, but usually slept in forecastles."

His voyage on the *Julian* took him to Cocos Island, and to the Galapagos Islands. They stopped at Abingdon for terrapin. "We got one that would weigh about 250 pounds, which was quartered for convenience in getting it to the beach. The only bird I saw on the island was a pretty ground dove that was so unaccustomed to men its tameness was shocking to me."

After a cruise of four or five months the *Julian* returned to Honolulu, and in the spring of 1853 Belding joined the bark *Philomela* of Portland ("an old tub"). The homeward voyage proved to be a very leaky one, it being necessary to jettison part of the cargo of guano which was loaded at the Chinee Islands. He reached home January, 1854.

"We were in the Chinee Islands during the summer of 1853 when the American clipper ship was in its glory. Several large, fine clipper ships were taking cargoes of guano. The *Defiance* was probably superior to any. In those days New England sailors were numerous and inferior to none. \* \* \* Excepting chilblains caused by chilly, drenching fogs of Kamchatka and the Arctic Ocean, I had not had an ailment of any sort. Probably I was benefited by sea air, a sailor's work, and plain food. I learned on the voyage the benefit of a plain life, that a struggle for wealth was folly, that a man should be his own master, but that to be so more or less money was needed."

In the spring of 1854 Belding nearly lost his life by shipwreck of *The Crisis*, while he was a passenger enroute to Baltimore from New York. When off Cape Henry a squall struck her; she sank, and the people escaped in an open boat, without oars, compass, water, or food. They picked up boards for oars, and were rescued the following day by a large ship. While they were adrift the captain and mate to keep up their spirits "told of other wrecks and how Brother James and others lost their lives."

Mr. Belding came to Stockton in March, 1856. Game was then very abundant and included elk, antelope, deer, quail, and water fowl. He says: "The elk of the State inhabited the tule marshes mainly, though I have seen many elk horns on the Marysville Buttes, probably left there by elk which came from the marshes of Butte Creek. I have seen hundreds, if not thousands, of elk horns on the border of the tule swamps north of Stockton. Antelope have entirely disappeared from the Sacramento and San Joaquin Valleys. I saw three a few miles west of Princeton in the summer of 1870. Deer were mostly in the mountains with a few along the rivers where there were extensive thickets on bottom lands. They will continue to be common with proper protection. I have seen only a few bears in the forest, probably about twenty, and only one undoubted grizzly bear. This I saw in the summer of 1875, when I was fishing on San Antonio Creek, near the Calaveras grove of sequoias.

"One of my favorite hunting localities was Summit Soda Springs on the North Fork of the American River. Game was abundant and deer came every night to drink of the iron water. There was plenty of quail and grouse shooting and an abundance of trout in the river. On the Middle Fork there was good trout fishing and numerous bears.

"Beaver and otter were plentiful in the sloughs and tule marsh about

Stockton. Beaver built houses on the marshes as the musk-rats do on the marshes on the prairies of the Middle West. There were several of these beaver houses within three miles of Stockton. They were on land that floated, as much of the peat land does in the tule swamps about Stockton. I shot seven beavers one day during the flood of 1861 and 1862. The few beaver about Marysville burrowed in the banks of the rivers."

In 1862 Mr. Belding moved to Marysville. Small game was abundant, while myriads of ducks and geese, attracted by Butte Creek, came from the north and east of the Sierras in October and November. The wood duck was very common on the Feather River, and was a constant resident. "Mountain plover appeared on the plains in October. Mountain quail came down from the mountains near Oroville and other localities on the eastern border of the valley to spend the winter. I have often hunted geese on Butte Creek and many times tried to get the Blue Goose (*caerulescens*) but never succeeded so far as to be satisfied with the result. Of two that I found in a Stockton market, I sent wings and feet to Mr. Ridgway, who identified the fragments as of *caerulescens*.

"At Marysville Buttes both species of quail are numerous in winter. It was usually above the winter fogs of the valley, when the Coast Range of mountains seemed to be the western border of a great sea. I often went there alone, and when the roads were very bad I would go on horseback, and usually at such times stayed at the country hotel a week or more. My horse would allow me to shoot from its back, or if I dismounted would follow me like a dog. Once while I was riding him through chaparral, he stopped, pointed his ears forward, and attracted my attention to a pack of quail that were running on the trail ahead of him.

"I retired from business in 1875, after which I hunted, and fished for trout, spent my summers in the Sierras, always taking a shot-gun and a trout rod with me.

"Game gradually became scarcer in the high Sierra Nevadas as sheep and hunters became more numerous. Deer avoided a range where sheep pastured. It was thought proper for anyone in the mountains, whenever they needed meat, to kill a deer, and Indians were free to kill them at any time, on the venerable theory that an Indian had the right because of his needs, forgetting that the Indian no longer used the bow and arrow, but instead of it he had the repeating gun and was often expert in its use. I have seen Washoe Indians from Nevada on their way home from a hunt in California have six deer carcasses, besides jerked venison in unknown quantity, and numerous grouse lying on the wharf at Tahoe City, and a white man was prohibited from killing it. About a hundred Washoe Indians had spent two winters in Calaveras County, and nearly exterminated the deer. A Mr. Williams told me he bought twelve hundred skins from them. Other dealers probably bought as many more. \* \* \* They were as destructive to trout in the small streams as they were to deer apparently, as they used soap root to stupify and kill the trout, and in so doing killed the most of the young fish. These streams contained no trout or other fish on the west slope where the altitude was over 3500 feet, until they were stocked by white men. \* \* \*

"Early in the spring of 1876 I got a volume of California Ornithology and began industriously to collect and identify the birds of this State. I had been an ardent sportsman ever since I was a small boy and I supposed that I knew



most of the birds, but my first bird book astonished me with many I did not know and had never heard of. I had never met an ornithologist or oologist and did not know there was any in this State.' I was successful in identifying my specimens. My success was due partly to my knowing many of the species, partly to the excellence of Baird's descriptions in 'California Ornithology' and in vol. ix of the Pacific Railroad Reports [Baird, Cassin, and Lawrence], and partly because many subspecies had not been recognized. I was sometimes materially assisted by Wilson's simple descriptions. The first eggs I collected were about on a par with my first bird skins. I picked a hole in each end with a pin, never having seen nor heard of egg-drills and blow-pipes. Eggs of Townsend's Solitaire and others quite as choice were thus punctured and sent to the Smithsonian Institution."

In the spring of 1881, Mr. Belding visited Cerros Island, off the west coast of Lower California. His original intention had been to explore Guadalupe Island, but conditions being unfavorable there, the project was abandoned. Twenty species of birds were either collected or recorded from Cerros, one being *Phalacrocorax dilophus albociliatus*. In addition he secured a new lizard, *Verticaria beldingi* Stejneger.<sup>3</sup> Ten days were spent at San Quintin Bay, where *Passerculus beldingi* Ridgway was taken, as well as seventeen species recorded. Seven species were noted at Santa Rosalia Bay, and three at Los Coronados Islands.

"During the winters of 1881-2 and 1882-3 I collected in the Cape region, from La Paz to Cape San Lucas, excepting the time that I was at Guaymas, which was nearly all of December, 1882, and a part of April, 1883. \* \* \* My collecting in the Cape region was satisfactory, notwithstanding some hardships I endured. The region is mostly a semi-desert, water is scarce and I several times suffered for the want of it.

"I found San José del Cabo the best field of the low country and the Victoria Mountains the best of the mountainous parts. I have often wondered why the sharp-eyed, indefatigable Xantus did not see *Geothlypis beldingi* on the San José river, where he spent a great deal of time, and also if it had rapidly changed since he was there some thirty years before. I do not think he was ever in the Victoria Mountains or he would have found the very common *Junco bairdi* and other common birds of these mountains, which are known to the California Academy scientists as Laguna—a decided misnomer, as the little lagoon that once existed at the lower end of a little valley, went down the mountain during a violent rainstorm which cut away a natural dam that held it.

<sup>3</sup>In THE CONDOR, vol. II, 1900, p. 1, Mr. Belding says: "I had met several persons who could mount birds and I had mummified and mounted some, but I soon found that a mummy was not a joy forever if it was a thing of beauty when first mounted. I had no difficulty in identifying my specimens, but in order to be sure my identifications were correct, I sent specimens to Washington for Mr. Ridgway's opinion.

"He and Prof. Baird gave me kind encouragement and Mr. Ridgway was very patient and prompt in writing long, interesting letters concerning the specimens I had sent. I was given many valuable books from the National Library, after which Prof. Baird sent me a catalogue of the publications it contained and told me to ask for anything I wanted. I was very grateful for these kind attentions and my zeal for the work was greatly stimulated. I do not think this kind encouragement was exceptional, for I think Profs. Baird and Ridgway were always glad to assist the student of natural history."

<sup>4</sup>Little mention is made in the autobiographical notes of herpetological collecting. Doctor Stejneger's dedication of the species throws light upon this matter. "I take great pleasure in naming this new species after Mr. L. Belding whose extensive and excellent herpetological collecting in Lower California as well as in Upper California has never been adequately recognized."

"The second time I was in the Cape region I took only seventy or eighty bird skins, for I did not wish to get many. I consumed about a week of this time in getting two specimens of the new rail, *Rallus beldingi*. I only heard of one man at La Paz who had ever seen one and several hunters were surprised when I showed them one of the birds. These birds can best be observed at low tide; when they move about in the mangrove thickets in search of food. I got my specimens by patiently waiting for them to pass comparatively open spots in the mangle. I rode sixteen consecutive days without skinning a bird, though I occasionally shot them when in doubt of the species. \* \* \* I have travelled considerably in the northern part of the peninsula, having, on one trip, been absent from San Diego sixteen days. I was at Laguna, which is about sixty miles south of Campo, in May, 1885. I secured three specimens of *Sitta pygmaea leuconucha* at this Laguna.

"The pleasantest days I have spent since 1876 have been in the mountains of central California. Since that time I have been in these mountains the most of each summer. I couple deer, grouse and quail hunting with bird study. At first I tried to connect botany with ornithology, but I could not look on the ground for plants and in the trees for birds at the same time. The ornithologist should, however, know the prominent plants at least. During my rambles I have noticed the hardiness of some of our mountain annual plants. I have seen the mercury down to twenty-two degrees on two successive mornings and no trace of frost afterward, except that a few of the tenderest ferns were killed. I suppose this may be owing to dry air and cool nights, the latter preventing the rapid growth and consequent tenderness of kindred plants grown where both days and nights are warm.

"My most interesting observations have been those of evenings and moonlight nights in some secluded part of the forest where large game was abundant. I have often heard the Pigmy Owl, which Mr. Ridgway correctly says is diurnal and crepuscular, and have quite as often heard the Flammulated Owl, which is strictly nocturnal and hard to get. I have only taken one specimen. The Western Barred Owl has never ceased to interest me, for it is quite familiar and seems to have a fondness for *talking back*! By imitating its shrieks and dog-like barkings, I seldom fail to get a response.

"The high Sierras have been explored but little in winter. I have been in the lower edge of the fir and pine belt the most of ten or eleven winters and have several times gone as high as 5,000 feet, but these higher ascents were only when there was but little snow. About the middle of November some years ago I was at the summit of the Central Pacific Railroad, altitude 7,000 feet. The ground was mostly bare and I saw only a few birds and fewer animals, the Little Chief Hare being one of the latter. The reptiles and batrachians were sleeping their long annual sleep which covers fully two-thirds of the year at this height, and the sleep of the marmot and some of the small animals is nearly as long. A few asters and *Sidalcea* were in flower in protected situations.

"Summit is a good locality for making winter observations, but when the snow is from ten to twenty feet deep, as it usually is in winter, snow-shoes would be a necessary part of the observer's outfit and snow-blindness must be guarded against."

"My love of adventure as well as my admiration of birds was responsible for the most of my wanderings. Bird songs always had a great attraction for me and I copied many songs that had regular intervals and could be expressed by our musical system. I think our meadow lark is more prolific of such songs than any of our species."

Belding's chief interest and pleasure in ornithology undoubtedly centered around live birds. It was the pursuit and observation of birds in their own homes that appealed especially to him. In his way, he must have been animated by much the same zeal that fired Audubon. He found writing rather tedious, and for the effort expended not so profitable to him as more congenial out-of-door occupations. For this reason his published writings are not at all commensurate with the actual amount of work that he accomplished.

His first long paper, published in 1879—"A Partial List of the Birds of Central California"—was the outcome of a very active period of collecting and observation begun in 1876. The collections were made at Stockton and Marysville, in the valley; at Murphy's on the lower edge of the pine region of the Sierras (upper edge of the Upper Sonoran zone); at Calaveras Big Trees (Transition Zone); at Summit Station on the Central Pacific Railroad, and at Soda Springs, ten miles south (Canadian and Hudsonian Zones). In this paper 220 species are listed. In a footnote Mr. Ridgway states that collections received from Mr. Belding up to that time amounted to about 180 species (not including races) and 600 specimens.

In 1883, three papers appeared as the result of his collecting trips along the west coast of Lower California and in the Cape region; and a short paper recorded the birds found at Guaymas, Mexico. In the two articles concerned with the Cape avifauna, 187 species are recorded, all but 21 being represented by specimens.

The Big Tree Thrush, *Turdus sequoiensis*, was described in 1889, from specimens taken at Big Trees. Later in the same year appeared an account of "The Small Thrushes of California," published, like the first, in the Proceedings of the California Academy of Sciences.

Mr. Belding's best known and longest work, "The Land Birds of the Pacific District", appeared in 1890 as one of the series of Occasional Papers of the California Academy of Sciences. When the American Ornithologists' Union was organized in 1883, Mr. Belding was appointed to superintend the collection of information concerning the migration and distribution of the birds of the "Pacific District," which comprised California, Oregon, Washington, and Nevada, an area of about 434,000 square miles. The "Land Birds" grew out of this work. Although data from many observers are recorded, a very substantial portion of the book is contributed by Mr. Belding himself. His own work covered principally central California, or "the part of the state between the northern parts of Stanislaus and Tuolumne counties and the northern part of Butte, southwestern Plumas and Sierra counties."

"I have made observations," he says in the preface, "at many localities in this part of the state, in the tule swamps, river bottoms, plains, foot-hills and coniferous forests of the Sierra Nevada Mountains at all altitudes, kept a record of the birds, but have not thought it necessary to burden my notes with a long list of localities. \* \* \*

"I am quite confident that few if any species have escaped my notice in Central California except a few which probably visit the high Sierra Nevada in

winter, from the north, when snow is so deep as to prevent exploration." Two hundred and ninety-five species are recorded, of which about 250 are definitely accredited to California.

Mr. Belding prepared a similar report on the water birds which was never published. The manuscript was presented by him to the Cooper Ornithological Club, and was later deposited in the Bancroft Library of the University of California.

When the American Ornithologists' Union was organized in 1883, Mr. Belding was elected to Active Membership, and in 1911 was made a Retired Fellow. He was a Life Member of the California Academy of Sciences, and aided very materially in building up its ornithological collections, especially during the period when his friend Walter E. Bryant was curator, and when he was himself actively engaged in field work. These collections were wholly destroyed by the fire which followed the earthquake of 1906. I need not remind our Club that Mr. Belding was one of our own most esteemed honorary members, having been elected in 1896.

The following species have been dedicated to Lyman Belding: *Cottus beldingi* Eigenmann, Desert Rifflefish; *Cnemidophorus hyperythrus beldingi* (Stejneger), Belding Orange-throat; *Oceanodroma beldingi* Emerson, Belding Petrel; *Rallus beldingi* Ridgway, Belding Rail; *Passerculus beldingi* Ridgway, Belding Marsh Sparrow; *Geothlypis beldingi* Ridgway, Belding Yellow-throat; *Aphelocoma californica obscura* Anthony, Belding Jay; *Citellus beldingi* (Merriam), Belding Spermophile, Sierra Picket-pin.

Mr. Belding was a painstaking and accurate observer, a conscientious recorder, and had in fact the real spirit of research. He hated inaccuracy and exaggeration. What he did he did well, and his limitations were those imposed by his isolation and lack of early training in scientific pursuits. He was a gentleman of high character and fine ideals.

In the following list, contributed by Dr. Joseph Grinnell, it is believed that all of Mr. Belding's published ornithological writings are included.

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*Palo Alto, California, February 6, 1918.*



## THE SALT MARSH YELLOWTHROATS OF SAN FRANCISCO

By GEORGE W. SCHUSSLER

TO THOSE who go afield from San Francisco during the first glorious days in early spring when the warmth shimmers low over the land and the birds are bursting into song, the open country surrounding the Laguna de la Merced in the southwestern section of the city yields a peculiar charm; for it is here, within scarcely an hour's ride of the metropolis, that one may find "a pleasure in the pathless woods", or pausing by the willow-bordered lakes, listen to the cackling of innumerable coots, to the whirring of ducks, and occasionally, on never-to-be-forgotten days, to the wild far away shouting of the loon. And here, too, mingling with the hosts of singing linnets, gold-finches and song sparrows, or flitting about the fresh-water ponds may be found that interesting feathered anomaly, the Salt Marsh Yellowthroat (*Geothlypis trichas sinuosa*).\*

The term "Salt Marsh" which has been applied to these birds is highly misleading and I cannot too heartily endorse the suggestion made by Messrs. Ray and Carriger that in future this sub-species be known as the San Francisco Yellowthroat. Its distribution was given in THE CONDOR, III, page 65, as "about the salt marshes of San Francisco Bay and vicinity;" yet not only is it found much more commonly in the neighborhood of fresh water throughout most of this region, but even in areas directly adjacent to the lower bay where salty flats largely predominate it shows marked preference for the reaches of non-saline streams. Indeed on numerous excursions along the brackish sloughs near San Mateo I have found this yellowthroat to be exceedingly scarce, though upon approaching that portion of fresh-water seepage land lying a few miles to the westward, it again becomes decidedly common and nests there abundantly.

About Lake Merced it is evenly distributed and is resident the year around, although much less in evidence during the winter months. In the short dark days of December a walk about the dreary swampland of the old rancho will often disclose the small olive-drab figure of *sinuosa* flitting out of sight far in advance of your approach, while the wind bears down to you its solitary *chack* of protest and suspicion. At this season these birds are more often heard than seen. They apparently forsake in greater part the boggy meadows where they dwell in summer and keep to the seclusion of the high tules standing in deep water; but with the gradual approach of spring their incursions into the shorter grasses and out among the willows become more and more frequent, until by early February the yellow breasts and masked faces of a solitary pair may be met with, like the outposts of an army, high up among the lupine bushes on the dry hill-sides. The greater number, however, are content to remain close down beside the lakes in the old willowy haunts of the previous year. At this period I have once or twice heard them utter a short grating *k-r-r-r-r-r* in addition to their familiar *chack* of distrust.

It is usually not until some warm, sunny morning in late February that the clear ringing *wreecch-ity, wreecch-ity, wreecch-ity, wreecch-ity* of the male is heard. This song varies considerably with the season and individual, those in early spring often sounding sadly out of tune, and some are even rendered in a con-

\*Specimens collected at Lake Merced, San Francisco County, by Mr. Henry W. Carriger, and by him deposited in the California Museum of Vertebrate Zoology, prove the identity of the race as above indicated.—EDITORS.

denser form of two syllables; but the power of it rises rapidly as the year advances until by the end of March its nuptial gladness pours forth in full-throated volume. Sometimes as evening approaches, one of the little black-faced birds will leap into the air with fluttering wings and expanded tail and as it slowly tumbles down into the grass again, will execute an exquisite series of melodious runs and trills not unlike the vocal accomplishments of the Chat.

The nesting period ranges from middle April until June, fresh eggs having been taken on April 2 and June 18. The yellowthroats, habitually suspicious, become doubly vigilant during the breeding season and I think that only twice in all the years I have studied them have I surprised the female in the act of carrying nesting material. It has been my experience that if an unfinished structure not containing eggs is located, the birds promptly abandon it. The nest, a cup-shaped, fairly compact receptacle is usually composed of lengths of dried grass well interwoven with the supporting stems. It is commonly hidden in bunches of wire grass or weeds among willows and placed from six to twenty-four inches above the ground. The bowl-like interior is often lined in rather a loose manner with dried grass or thin fiber. The usual complement is four though a set of three, particularly when laid late in the season, is not rare. The eggs are taperingly oval in shape, white, with a decided pink tinge when fresh, and circularly spotted about the larger end with dots and dashes of black, brown, and deep lavender, varying in size from minute markings on some specimens to a pronounced ring of color on others. Incubation, which is performed by the female, usually occupies about fourteen days.

There has occurred of recent years a serious factor which may possibly, if long continued, result in permanent changes in the nest-building of these birds. It has become a custom of the Italian truck gardeners who cultivate the upper hills of Merced to make frequent excursions down to the lakes to cut the tough wire grass in which *sinuosa* nests, in order to use it for binding vegetables, thus economizing in cord. For this purpose the grass is collected in enormous quantities, great swathes being opened through the thickest growths and in other places entire meadows being utterly denuded. As this destruction takes place during the time when eggs and young are in the nests, it is reasonable to conclude that numbers of these are annually destroyed. It has lately appeared to Mr. H. W. Carriger (and my observations would tend to confirm his conjecture), that as a result of this persecution the yellowthroats are nesting less abundantly in the grassy flats and adapting themselves more to life in the inaccessible tules of the open lake, or else building their homes higher up toward the banks amid thickets of blackberry and willow. Certainly the number of sets found in these localities is far greater now than in former years, and in time such safety zones may be used exclusively.

While incubating, the females often show remarkable shyness in slipping off the nest and keeping well ahead of the observer, with short undulating flight. Occasionally as evening approaches they are apt to flush from directly beneath one's feet, particularly should he beat quietly up toward them against the wind. When startled from her nest the female disappears and maintains silence for some moments but if the intruder remains in the vicinity, or removes the nest or eggs, her sharp *chack* of alarm will rapidly summon the male and the pair will flit nervously about in the underbrush, often fearlessly approaching within a few yards of the observer.

The young when hatched are naked, but gradually become sparsely covered with light down. Feeding, which is participated in by both parents, takes place at short intervals during the greater part of the day, until the young are ready to leave the nest. So far as I have been able to observe, the parent birds appear to entice the ambitious nestlings into the tule and willow thickets away from the open flats where they may have been hatched. This is probably in order to afford them the shelter of the branches and, by removing them some little distance from the ground, to protect them against small predatory mammals.

In September the summer songs of the males have ceased and a great diminution in their numbers is noticeable. By November, *sinuosa* has again largely retired to his tule jungle and with his added winter air of distrust is once more the shy flitting figure of the December marshlands.

*San Francisco, November 9, 1917.*

## A RETURN TO THE DAKOTA LAKE REGION

By FLORENCE MERRIAM BAILEY

With one photo by Robert B. Rockwell

(Continued from page 37)

### 5. THE PHALAROPE SLOUGH

ANOTHER slough only a few rods from the farm house filled a level floored basin bounded by a low bench line. When the first settlers came, the slough was an overflow from the lakes, one could row from it to both the north and middle Sweetwaters, I was told; but now in dry years the entire slough could be mowed, as was attested by remains of fenced haystacks that made islands in the open water of the slough. The grass was the typical headed slough grass though not quite so high as that in the Big Slough, while its water was only about knee deep. The place had attracted me from the first because of the Redwings that nested there and the Sora Rails whose ringing ecstatic songs came from it. In looking for the invisible Sora, one day, I flushed a small timid Sparrow, presumably the Nelson, which sang a variety of songs with the emphasis on the first and second syllables—*chit'-tah-chitter; chat', chat, chat-ah-cha; chit', chat', chitter, chitter chit; or chit, chat, chittah, chittah, chittah*—and which gave a flash of buffy before he disappeared in the grass. When he had gone down and I had roused the worried interest of several pairs of Blackbirds, I had a great surprise.

The Redwings which were following me around in the slough were joined in air by two small waders, white from below and with sharp bony wing angles. Slender, long-winged, able-winged creatures of the air, with long legs projecting beyond their white fan tails, they were striking contrasts to the stocky Red-winged Blackbirds, so evidently creatures of the earth. Much smaller than the Upland Plover, with free open flight instead of the quick wing beats of *Bartramia*, and with a hoarse cry too large for their size, they puzzled me greatly; for it was hard to catch markings, they flew so high above my



head. But at last, getting a hint of the reddish brown neck stripe, I knew my lovely birds for the Wilson Phalarope, and recalled with a thrill that they were said to nest in prairie sloughs. The Wilson Phalarope! Years before, my first—shall I ever forget it?—was seen on a flood pond in Texas on its northward migration, its slender neck arched, its plump body riding the water with easy grace; dainty, exquisite bird with touches of color adding richness and elegance to its beautiful form.

Before reaching the Sweetwaters, I had seen a small flock on Devil's Lake, charming little creatures, rapidly turning and twisting as they picked up tiny insects from the surface of the water. And now to find the lovely birds with a glamour all their own, living in my very dooryard! My cup seemed full indeed. The slough seemed a place of rare good luck and mystery. Where had the beautiful visitors hidden their nest?



Fig. 5. THE RESULT OF A SUCCESSFUL HUNT—A WILSON PHALAROPE ON ITS NEST.

Photo by Robert B. Rockwell.

When they stopped following me for a few moments, one of them flew away out across the slough and I saw it go down. Marking the spot by a distant fence post, I started to wade to it, but as I waded I came to one of the haystack islands from which a party of Blue-winged Teal and some larger ducks rose, and on which scattered feathers spoke of a preening ground. The Phalaropes discovering me here began following me around and one finally flew down to another haystack island where, although it tried to crouch to make itself inconspicuous, I had a moment's good look at it. When standing with wings folded it seemed much smaller than with wings extended in flight. Exquisite, slender-throated little beauty! How I feasted my eyes on it

In flying back and forth the White-wings did not follow me closely as did the Redwings, but crying in a hoarse monotone of one or two notes they swept from one end of the long slough to the other including me in their beat and

sometimes coming as low as ten or fifteen feet from my head. They generally flew near together, especially as they approached me, but toward the ends of their beat would sweep off wide apart in a broad turn. In flying swiftly by with closed tail the disappearing Phalarope suggested the bullet-like end of a dirigible, but when one hesitated over my head, its slender outstretched feet and legs trembling from arrested motion, its spread tail suggested a white silk fan. Sometimes the beautiful birds would hover in air with feet hanging, calling *wek-wek-wek-wek-wek*.

Most of the time during the first day that I was watching them, two pairs of Redwings and two White-wings were following me. When they were excitedly flying over my head, one of the Phalaropes almost jostled wings with a Blackbird, and another time when the weaving wings became confused, a Barn Swallow actually chased a Phalarope for a good swing of the circle, a Swallow being used to circling the earth unhindered. Again, a Killdeer added its emotional cry in passing. When a young Redwing flew clumsily and noisily out of hiding, the old ones made a great to-do, one of them projecting a handsomely decorative figure against the blue overhead, with wings and tail widely spread. As I passed a fence, an old male addressing his mate puffed out his scarlet epaulettes till he seemed all red, the glowing color filling the eye. A third Phalarope appeared on the scene later, but did not join in the demonstration.

There were two pairs of Phalaropes apparently living in the slough, and the two that most persistently followed me about were probably the larger, more brilliantly colored females patrolling the slough while their mates—reversing the general laws of nature as they do—were brooding the eggs and caring for the young. But in any case the presence of these most interesting birds made the slough a compelling place to return to.

Enticing as it had been from the presence of the teasing, invisible Soras, now, with a bird of rare charm conspicuous in its sky, the little Rail's songs called irresistibly from its green cover. There was a delightful Sora concert before sunset one evening when I was there, the blithe songs tripping joyously down the chromatic scale, and at night, from the open windows of the farm house occasional outbursts came till nearly midnight from this joyous, irrepressible Bobolink of the Sloughs.

The afternoon following my discovery of the Phalaropes, I again made my way down to their attractive home. Small cumulus clouds floated in the soft blues of the level horizon while big white clouds with wind-frayed edges stood out in the deeper blues above; but as with the Big Slough, the low horizon clouds seemed to come close, to make the prairie circle small and intimate, to make the Phalarope Slough a little world of its own. And what a sunny, peaceful world it seemed, with the western sun yellowing its tall waving grass and giving a keen edge to streaks of yellow mustard beyond! Across the near sky line, telling of peace and plenty, a gang plow moved slowly back and forth. As the horses went and came, I corrected my count of five, for one horse without a white nose stripe—interesting point in Protective Coloration—had not been discovered at first!

As I waded slowly about the slough, swashing through the water in my rubber boots, getting whiffs of fragrant mint and enjoying the pink flower spikes, near the line of the wire fence the Redwings followed me solicitously and the Whitewings flew overhead watchfully, but—clear mark of intelligence—after

one day's experience the Phalaropes showed much less anxiety and did so little calling that I was actually afraid they would lose interest in me and fail to appear.

Redwings on fence posts called *tchack* and whistled and opened wide their bills, emitting a gurgling run. The sight of a striped female carrying food, and glimpses of grown young gave point to the solicitations of the six that flew noisily back and forth over my head, sometimes with feet dangling, when I was in their especial neighborhood. Wading out to the fenced hay island where the Phalarope had stood while I admired him, I opened my camp stool in the shallow water and sat down with the brown-topped grass waving high around me. On three of the four fence posts, Redwings lit, males on two posts, a female on the third. Other males tried to take forcible possession of the post occupied by the female, but she, as if aware of the tendency of the times, flatly refused to relinquish it! A handsome male with flaming epaulettes flew close over my head trying to get courage to light on the fourth post, in front of me. The Whitewings were evidently afraid to light on the fenced island, much as they wanted to, so I finally gave up waiting for them and moved on to explore other parts of the slough.

Another time a pair of Shovellers were flushed from this popular resort and a pair of Blue-winged Teal rose from a similar hay island, flying off with a weak *wang, wang*. Once a pair of Mallards, the duck in the lead, circled twice around me and then flew off, and occasionally a single duck or a pair would fly swiftly low across the slough to disappear in the green of the prairie.

As nearly as I could make out, the Phalaropes lighted only in the old hay islands, going down awkwardly and with apparent effort as if the air were the only natural place for them. One in descending first dropped its legs and then tipped up its wings, giving the effect of pitching head first.

Various small Sparrows sang small songs in the slough grass here and there, some Savannahs, some Nelsons, and perhaps others. One Nelson gave its *tsang'ger-ee*, but in such a subdued voice that I barely recognized it. Another small Sparrow sprang up high in the air and gave a flight song, but with such a faint buzz that I could hardly be sure it was singing. Delightful little will-o'-the-wisps, they added their own charm of life and mystery to the slough.

As I waded slowly back and forth through the high grass, the Soras were singing ahead of me, and when I stopped and sat down quietly they sang all around me. When I tried to whistle them up one answered so near that it seemed to fairly take the words out of my mouth, and I barely escaped seeing it. But although I did fail to see the mouse-like little Rails in their dense cover, several times during the summer I was fortunate enough to happen along just as one was walking jauntily along a ditch or slough by the roadside—once when a small furry animal, doubtless a meadow mouse swimming to shore, attracted my eye. Again, a little fellow was wading up to his body, with wings tight at his sides, as neatly and prettily as could be; and another time one deliberately walked across the road only fifteen or twenty feet ahead of the automobile.

The call of the Sora, though only a single *kee* or a double *ker-wee* roused my attention by its brightness and animation as well as its association with the more elaborate song. Tripping down the scale in a rapid chromatic *We-he-ee-ee-ee-ee-ee*—or *Kee-wee-wee-wee-wee-wee-wee*, the song rang with exuberant joyousness. When not sung with fervid ecstasy to its close, the scale was

broken near the end, and after a moment's pause, the last notes were repeated, slowing up at the close. What a delight to sit in the slough and hear these charming musical scales run all around you from invisible choristers! Joyous Bobolinks of the Sloughs, they surely are! After a rich afternoon with the Phalaropes and the Rails, as I started homeward facing the lowering sun, the shining bent blades of the beautiful slough grass, green to the east, were blowing white to the west.

Wondering if possibly the Phalaropes nested on the dry ground outside, instead of in the water-floored slough itself, I walked down the adjoining strip of dry ground; but though one of the long-winged birds came far afield to investigate me, he soon returned to the other Whitewings and they all kept beating back and forth over the brown-topped acres where their chief interest indisputably lay. But where were the nests, I kept asking myself with insistent disappointment. Perhaps on some of the platforms of old hay that I had missed, safe in the heart of their water-floored cover.

On my last visit to the Phalarope Slough, about a week after my discovery of the birds, as two flew overhead near together I distinctly caught the reddish brown stripe along the front of the neck and the color on the chest characterizing the female. By this time the birds were so used to me that their remonstrance at my presence was half-hearted and they soon dropped back to go about their own affairs. I had failed to find their nests, I acknowledged with keen regret, but the beautiful Whitewings had given me many choice hours.

As I waded around listening to Soras and nondescript Sparrows, a noise overhead made me look up. High up, away up in the blue dome, so high it seemed as if it must soon go out of sight, I discovered first one and then one more white Gull—a rarely lovely sight. Then as I turned toward home, a great cloud of white smoke from a burning straw stack rolled up and, blown by the wind, swept out across the prairie.

#### 6. FROM THE FARMHOUSE

A low knoll overlooking the sloughs afforded dry ground for the farm buildings, and barn, vegetable garden, and potato patch attracted birds not found in the wet sloughs. In the barn, around whose doors the large band of farm horses and colts gathered picturesquely, a colony of Barn Swallows made themselves at home, and short rows twittered on the telephone wire outside, at a safe distance from hungry cats. On a fence near the barn an Eave Swallow was seen once or twice, perhaps from a neighbor's eaves.

The piazza of the farmhouse looked out on a yard having delightful western suggestions—scattered banners of gramma grass and a low form of sagebrush (*Artimisia frigida*), well associated with Clay-colored Sparrows and Western Meadowlarks. One of the larks sang habitually from the posts of the garden fence and he had a droll, rag-time phrase that seemed to run in his head. *Su'-key, su'-key, su'-key, su'-key, suke'*, he sang over and over, to the irritation of the listener but with entire satisfaction to himself; he, the renowned musician who—but perhaps he was a young tenor whose full repertoire had not yet been developed! Or, on the other hand, was it he whom I happened on at a crucial moment? On the grass in front of the house a handsome suitor stood facing his lady, displaying all his charms, his black-collared golden breast and his rich elaborate song, rendered with ardor and persuasiveness. Apparently, however, both charm of voice and person were lost on the lady, for

she made no sign; and as if feeling his dismissal final, he flew back to the garden, presumably leaving the field to a third Meadowlark who was waiting as if to see what the decision of the lady might be.

His love song, especially as given in flight, is a musical rhapsody, an elaborate musical performance suggestive of the enraptured flight song of the Oven-bird, altogether apart from the rich, uplifted songs of both eastern and western Meadowlarks.

The season of song varied somewhat with the birds. A Vesper Sparrow was heard July 12th singing with such sweetness and fervor that I imagined a second nest was in progress, while both House Wren and Song Sparrow sang enthusiastically, and the Sora Rail joyfully the second week in August. In the main, however, the lovely song of the Meadowlark stood out with peculiar charm in the August dearth of song.

In June and July the tinkle of the Horned Lark was often heard from the piazza, for the birds were attracted by the large black-earthed square of the vegetable garden, as a family of Killdeer were attracted to the soft earth of the potato patch. But our most striking visitors were the handsome Yellow-headed Blackbirds who came from their marsh nesting grounds to the garden for worms. Between times they sat around on fence post or wagon wheel looking very much overdressed with their low-cut orange vests, at intervals giving vent to their feelings in curious fashion. One of their calls suggested the *krup* of the Red-headed Woodpecker; another, too harsh and strident for such elegant personages, might have suggested an exaggerated Redwing *o-ka-lee*, but was in reality a strange *oak-oak-kah*, so run together that the k's gave a sustained throaty effect. The Yellow-head's song was even more peculiar than his call. Raising his head he started out not unmusically, but followed with an awful strangling utterance, after which he serenely put his head down and sang a low rhapsody full of delightful musical murmurings! Such originality carried into every day life would surely make him an enlivening companion!

Several times, as I sat writing on the piazza, I looked up just in time to see a brown Duck furtively waddling by along the protecting bottom of a terrace; but hunt as I might, I never succeeded in discovering her nest.

In the late afternoons the rattle of old Polly's hoofs would make me look up quickly to greet our little school boy, home again from his daily three mile ride across the prairie. And later, when he had taken a look at his new brother, at the sound of loping feet I would see him again, on a fresh horse, racing bare-back down the wheat fields to bring in the cows for the evening milking. In the barn yard at one time were found some of the repulsive looking mud puppies chanced on in other places, one half buried in a mound of soft earth—big black, lizard-like creatures, sometimes spotted with yellow, with round puppy heads, soft bodies, and thin, high paddle-like tails which they whipped around to terrorize inquisitive chickens and other too familiar observers. A plague of these horrid, uncanny creatures appeared at times, as once during a storm when so many took refuge in a cook car, that they had to be shovelled out of the door, the Norwegian cook informed me.

From the piazza of the farmhouse many a beautiful picture was seen during the season. Gorgeous sunsets were so frequent in this lake region with its heavy summer storms that they were one of my greatest pleasures. One June night when the wind was shifting and the sky breaking away after a storm—low buffy clouds blowing southwest—the sun shot out blindingly in the



west and the red farm buildings glowed a keen red, the fence posts standing as bars of gold. Over the fields the projected shadows of the buildings made irregular domes of cold green across the sunlit yellow green of the young wheat fields. On a July night a thunder storm at supper time made an obscured sunset, but when the heavy rain fell from the sky, the darkness lightened and an unusual color effect was given the landscape. The squares of plowed ground stood out black against the intense vivid green of the grain fields. It was at once a repressed but illuminated sunset, the light apparently being reflected from the clouds.

After trying east winds, electric storms, and unprecedented rains, near the middle of July the wind veered to the northwest giving us one of the perfect, heavenly prairie days with serene blue sky, ever shifting cloud forms, and a caressingly soft prairie breeze that brought the sweet breath of new-mown hay. As I watched the ever-changing white forms in the sky, I wished that a moving picture film might be taken of clouds on the prairie. Now a row of pointed caps marked the east, now small irregular cloudlets floated along the southern horizon; then cumulus masses formed but to dissolve, while far-flung exultant clouds held the eye in the high sky. Bands of light illumined the wheat fields, and from a fence post a Vesper Sparrow sang his uplifted song, in rare harmony with it all.

(To be continued)

## SIX WEEKS IN THE HIGH SIERRAS IN NESTING TIME

By MILTON S. RAY

WITH FOUR PHOTOS BY THE AUTHOR

BY RETURNING for a number of years to the same localities in the Tahoe region I have had opportunity to note the variations in its bird-life from year to year, both in abundance and variety. Almost every season I have added new birds to the Lake Valley list, though each year, too, I have failed to record certain birds present the previous seasons.

The winter of 1911 had been one of very heavy snowfall, and while en route from Truckee to Lake Tahoe on the thirteenth of May the train track led the entire distance through snow, in places as deep as twelve feet. Willows and aspens along the roaring streams showed as yet no signs of leaf. Notwithstanding this wintry outlook, I noticed a newly completed nest of the Water Ouzel (*Cinclus mexicanus unicolor*) on the top of a large boulder in the middle of the Truckee River near Deer Park Station, while nearer Lake Tahoe I noted numerous American Mergansers (*Merganser americanus*) in pairs flying up stream.

Snow, three to twelve feet deep, running down to the water's edge, covered the western shores of Lake Tahoe everywhere along the route to Bijou, where I arrived at 1:45 P. M. in time for a short tramp afield. I saw the Audubon Warbler (*Dendroica auduboni auduboni*), Calliope Hummingbird (*Stellula calliope*) and seven other species in the winter-like solitudes, before a blinding snow-storm

drove me back to camp. The next day I observed a pair of California Jays (*Aphelocoma californica californica*), a new bird for Bijou and Lake Valley and whose occurrence here is really remarkable when one considers the fact that a high mountain area of between fifty and sixty miles separated these birds from their usual haunts (the western Sierran foot-hills), while to the east, only a few miles over the range, the Woodhouse Jay is to be found in not greatly dissimilar country. Although residents told me the birds had been seen about for several weeks, they were apparently not nesting.

At Bijou, with its more open and mostly second growth timber, the season was earlier than at the northern end of the lake, but here, as along the Truckee River, the aspens and willows were still bare, and, although the snow was present only in patches, the brown turf beneath showed as yet no sign of the coming grass. Only two pairs of birds were noted engaged in nest-building—Mountain Chickadees (*Penthestes gambeli*) in a stump and Cassin Purple Finches (*Carpodacus cassinii*) in a tall, unclimbable Jeffrey pine.

The next day, May 15, a trip was taken to Rowland's Marsh. Here, on an island, I witnessed the arrival of thousands of Tree Swallows (*Iridoprocne bicolor*). A hundred pairs or so took up homes in the vicinity, while the others flying north and northwest, continued on after a short rest. In the marsh pond lilies were just budding out beneath the water, the tules, flattened and brown, were lying dead, while the marsh grass, in places where the snow had retreated along the shore, was making its first feeble

appearance after the long winter sleep. The trip to the marsh was taken primarily for the purpose of investigating the nesting of the Canada Goose, which I have treated in a previous article (CONDOR, xiv, 1912, p. 70).

Sleet fell on May 16 and the day was dark, windy and cold. Near Lakeside Park (Stateline P. O.) I noted a Western Evening Grosbeak (*Hesperiphona vespertina montana*) the first I have recorded for Lake Valley. Not far distant, for some time I watched the tactics of rival pairs of Mountain Chickadees and Western Bluebirds (*Sialia mexicana occidentalis*), both trying to build in the same cavity, while from an aspen a Modoc Woodpecker (*Dryobates villosus orius*) was flushed from a nest-cavity twenty feet from the ground and holding four fresh eggs.

On the way to Cave Rock next day, near Edgewood (Nevada) I noted a colony of Cliff Swallows (*Petrochelidon lunifrons lunifrons*) engaged in plastering



Fig. 6. BELTED KINGFISHER WHICH MET DEATH BY BECOMING ENTANGLED IN WIRE FENCING; BIJOU, AT LAKE TAHOE, MAY 18.

their mud nests, forty-seven in number, along the rafters of an open cow-shed. As I came near, the birds began circling upward until they were almost lost in the clouds. Later they came down again and resumed building, but six hours afterwards when I passed the spot on my way back to camp, every one of the birds had disappeared. The day closed without any other than the usual species being noted and no nests, save a second Modoc Woodpecker's with three fresh eggs and a Red-shafted Flicker's (*Colaptes cafer collaris*) in course of excavation.

On May 18 it stormed until 3:15, when I went abroad on a short ramble. The only interesting discovery was the finding of a Western Belted Kingfisher (*Ceryle alcyon caurina*) which had met its death by becoming entangled in wire fencing on the hotel grounds and which is shown in the accompanying photograph (fig. 6).

Having heard of the former nesting of Golden Eagles (*Aquila chrysaetos*) on the range of mountains southeast of Bijou and as the weather had now become clear and still, I decided next morning on making a trip to this region. During the whole of a long day's tramp afield, I saw three eagles, but found no nests, although I did locate, in a massive Jeffrey pine about 150 feet up, an occupied nest of the Western Red-tailed Hawk (*Buteo borealis calurus*) to which, however, I did not climb. In one respect this nest is worthy of notice being the only tree-nest of a large raptore that I had ever found up to this time in the High Sierras.

On May 20, on the edge of a swampy tract, I came upon a pair of Sierra Red-breasted Sapsuckers (*Sphyrapicus varius daggetti*) engaged in nest-drilling in a tamarack pine. The birds worked alternately for about equal periods and I watched them for a considerable time.

On the 21st, in company with two friends, a tramp was taken over the eastern summit and down into Carson Valley, Nevada. Here numerous nests of common species were noted, and, owing to a lower elevation, most of them contained eggs. Some nests noted held young which, in the case of the Nevada Redwing (*Agelaius phoeniceus nevadensis*) were as yet unfeathered, while those of the American Magpie (*Pica pica hudsonia*) were almost ready to leave the nest. Of more than passing interest were colonies of Brewer Blackbirds (*Euphagus cyanocephalus*) nesting in tules along fresh-water sloughs, although there existed abundant opportunity for tree-nesting. Seven nests examined were made of mud, manure, grasses, weed-stems and rootlets, and were lined with horse and cow hair. They held from two to six eggs, all apparently in a fresh condition.

On my return to Bijou, May 25, the first find worthy of record was a nest of the Mountain Chickadee in the top of an old stump, with five nearly fresh eggs, and one of the Williamson Sapsucker (*Sphyrapicus thyroideus*) the day following, with six eggs in which incubation had just begun. The nesting cavity was fifteen feet up in a dead lodgepole or tamarack pine and the eggs lay on a bed of bits of wood excavated by the birds. While I was in the tree both the parents, so wonderfully unlike in coloration, made their appearance, the male uttering from time to time, as it went up and down the nearby tree trunks, the remarkably loud and characteristic call-note.

At Rowland's Marsh, two days later, I noticed at least a thousand Cliff Swallows in migration. The birds rested for a time in the same grove of dead pines in which the Tree Swallows had been seen previously and where many of the latter had since taken up their abode. I came upon a pair of Western Ruby-crowned Kinglets (*Regulus calendula cineraceus*) engaged in tearing the nest of



a previous year apart to use the material in the construction of a new one. The latter, however, I failed to find and it was apparently located at a considerable distance.

I excavated a nest of the Modoc Woodpecker on May 30 with four partially incubated eggs. The birds had cleverly hollowed out an aspen knot and, though but fourteen feet up, the nest was difficult to find. Not far distant a nesting cavity of the Red-shafted Flicker was noted with eight slightly incubated eggs; this was in process of excavation on May 17. On approaching the cow-sheds which had apparently been deserted previously by the colony of Cliff Swallows, I was surprised to find they had all returned and that most of the nests now held eggs.

An American Merganser was seen on May 31 close to Bijou with six young just hatched, and on June 2 the first Pacific Nighthawk (*Chordeiles virginianus hesperis*) of the season was noted. Later in the day a nest of the Williamson Sapsucker and one of the Sierra Red-breasted Sapsucker, both with completed sets of five eggs, were duly chronicled. The latter birds were quiet in their nesting precincts, compared to the noisy Williamson.

On June 4, I came upon a Belted Kingfisher apparently engaged in nest-burrowing in a sand bank along the lake shore. Revisiting the spot some days later, this burrow proved to be but a decoy, for the occupied one, partly concealed by overhanging pine roots close by, now held small young.

Messrs. Henry W. Carriger and Chase Littlejohn arrived at 1:30 P. M. on June 4, and with characteristic energy Carriger, a few hours later, had us all afield. The first find of the triumvirate was a nesting hole of the American Sparrow Hawk (*Falco sparverius sparverius*) in a tall dead pine, but no one cared to make the climb. The one nest found of importance was by Carriger—a Pigmy Nuthatch (*Sitta pygmaea pygmaea*) in a narrow slit-like cavity seven and one-half feet up in an old pine stump, with eight fresh eggs. Littlejohn collected the female parent which contained, unfortunately, an additional egg with the shell not yet hardened, thus marring a set of very fine specimens.

On June 5, the entire day was spent afield. We rose early, as Carriger had a way of making life miserable for anyone abed once daylight streaked the east, or even when said streaking was still a matter of question. The first finds were by the writer, among which were a nest of the Mountain Chickadee with six fresh eggs, and one of the Williamson Sapsucker with a like complement. Most noteworthy, however, was a nest of the Pigmy Nuthatch which I located thirty feet up almost at the very top of a dead limbless pine stump, which required considerable work to reach, and then only with the aid of all hands and two long and rather unwilling ladders, borrowed at a nearby lake resort, and nailed together. Both the dead tree and the ladder creaked and rocked far too much for my liking as I went cautiously upward, and my investigation was hastily and anxiously made. The sitting bird was flushed from the nest, which was built in a narrow slit-like crevice, excavated by the birds, and lined with wool, cottony substances, snake skin and feathers. It held seven eggs slightly incubated. Carriger located two nests of the Williamson Sapsucker, one with small young, and the other with six slightly incubated eggs; while Littlejohn noted two incomplete sets of the Red-shafted Flicker, one with five eggs, and the other with but one. He also collected a male Green-tailed Towhee (*Oreospiza chlorura*) which dissection showed was about to breed. Easily the most important record, however, was made along the Little Truckee River, where we saw, flying at a height of 100 feet

or more, four birds whose call, form and flight none of us could identify. That they were new for the Lake Valley check-list we all felt sure. Littlejohn, with a really remarkable shot, succeeded in bringing down one of the birds, which proved to be a Pinyon Jay (*Cyanocephalus cyanocephalus*), the first we had ever seen in the field.

In meadow land on June 6, we noted the Wilson Snipe (*Gallinago delicata*). This is the second time I have seen this bird in the region, and it is not unlikely that it will be found nesting here. A long day afield yielded no collectable specimens, except a nest of the Audubon Warbler, found by Carriger, with five well incubated eggs, all the others being of the more common species which already had full representation in our cabinets.



FIG. 7. HENRY W. CARRIGER CHOPPING OUT A NEWLY DRILLED NEST-CAVITY OF THE WILLIAMSON SAPSUCKER; FORNI'S, 8000 FEET, NEAR PYRAMID PEAK, EL DORADO COUNTY, CALIFORNIA, JUNE 12.

On June 7, although we invaded new territory, what we found was a repetition of previous outings: nests of the Audubon Warbler, Red-shafted Flicker, Sierra Red-breasted Sapsucker and Williamson Sapsucker. The typical nest of the latter here is in a trunk of sound wood outwardly, but soft in the interior. In one place some of the trees had been used for years and contained many entrances for former nests and many blind holes. I do not believe the latter are excavated for use as decoy cavities, but believe that they are rather the result of the birds finding the wood too sound for easy penetration.

June 8 was full of surprises. The first of these came when I found a nest of the Calliope Hummingbird. This held one fresh egg, and was seven feet up on

a lodgepole pine limb that slanted downward. Dissection showed the parent would not have laid a second egg for a considerable time. The egg is large for the size of the bird, it being but little smaller than an egg of the Anna Hummingbird. This is the first nest I have found of these tiny midgets, which seem especially diminutive among the great forest trees that characterize their home. Later, Carriger and I came upon a nest of the Slender-billed Nuthatch (*Sitta carolinensis aculeata*) fifteen feet up in a natural crotch-cavity between two great twin Jeffrey pines that branched out from a single trunk. The nest was not only notable in that it was one of the very few that I have found of this species in the region, but also in that an immense colony of black ants which was continually journeying up and down the trunk past the nest did not molest the small unfeathered young which lay in open view a few inches farther in. Equally interesting was discovery by Littlejohn of a nest of the Thick-billed Sparrow (*Passerella iliaca megarhyncha*) in buck brush two feet up. The nest, made almost entirely of bark-strips and rootlets, was collected with its three fresh eggs and one of the parents.

We made a long journey by boat on June 9 through the Rowland's Marsh. While going through the tules I called attention to what, some distance off, appeared to be a bird upon a floating nest. My companions laughed, and Carriger said it would no doubt prove to be but a stick amid drift wood. As we came nearer we were all amazed to behold an American Bittern (*Botaurus lentiginosus*) with outspread wings and upright bill. Surely we had left our camera in camp at a very inopportune time. The bittern taking flight disclosed five eggs (fairly well incubated) lying upon the floating nest of cut tules. Owing to the backward growth of the marsh vegetation, the nest was in open view; later, however, it would have been difficult to locate. We also found three nests of the Canada Goose as previously related (CONDOR, *loc. cit.*). A nest of the Mallard (*Anas platyrhynchos*) was also found on a sand spit by Carriger with nine eggs in an advanced state of incubation.

Next morning, June 10, we left afoot for the Pyramid Peak region. En route I noticed a Parkman Wren (*Troglodytes aedon parkmani*) engaged in nest building in an old barn along the road, while at the upper end of Lake Valley, Carriger and Littlejohn engaged in wild pursuit of a bird which they declared must be entitled to a new number on the California check-list. After a spirited chase, the specimen was secured and proved to be but a partial albino Thick-billed Sparrow.

At Meyer's Station, in looking into some nests of the Cliff Swallow in a shed over the stock-scales, while Carriger jokingly derided me for showing a backward tendency toward the collecting tactics of more youthful days, I made a most unusual discovery. In one of the nests which was in no wise peculiar I found two eggs, fresh and of a crystalline whiteness, unmarked and considerably larger than eggs of this swallow usually are. Greatly interested, I awaited the return of the birds, which proved to be Cliff Swallows, and although but a partial set, I decided to take the specimens as we were about to leave on a trip of undetermined length. On June 14, on our way back, I found the birds had rebuilt that portion of the entrance which I had torn away and deposited another egg of glossy whiteness. By another trip to this site on June 21, I secured a fourth similar egg, slightly incubated, thus completing one of the most unusual sets of eggs of the Cliff Swallow of which I have knowledge. Except for their very glossy shells and for being slightly longer and more narrow, they closely re-

semble the set of eggs I have of the Gray-crowned Rosy Finch. The specimens easily equal in glossiness any eggs in my series of the Modoc Woodpecker or Williamson Sapsucker, and measure in inches as follows: .95x.63, .83x.60, .95x.64, .97x.60 (Davie gives average size of eggs of the Cliff Swallow as .82x.56).

At dusk we reached Phillips' Station, where much of the country was still covered by deep snow, and next evening, June 11, we made Forni's at the base of Pyramid Peak. Here too the whole region lay under deep snow. In some places the drifts were of such depth that the bare willows and other small trees were almost completely buried. Carriger located a nest of the Mountain Chickadee near Phillips' with seven (well spotted) eggs, another near Forni's with eight, and still another near our cabin the day following with six; all three sets



Fig. 8. NEST OF SIERRA JUNCO, AT PHILLIPS', IN THE SIERRAS OF EL DORADO COUNTY, CALIFORNIA, PLACED IN ABSOLUTELY OPEN VIEW IN THE CORNER OF AN EMPTY BOX. THIS SITE MAY HAVE BEEN SELECTED ON ACCOUNT OF THE DEEP SNOW WHICH AT THIS DATE (JUNE 13) COVERED THE GROUND ALL ABOUT.

were fresh. He also found eight feet up among strips of the bark of a fir, a nest of the Sierra Creeper (*Certhia familiaris zelotes*), made of fine twigs, soft grayish bark fibers, moss and soft bits of wood, and containing two fresh eggs. Later he excavated a dwelling of the Williamson Sapsucker, shown in the illustration (fig. 7), which proved but newly drilled. The only other nest found was by the writer, a freshly built one of the Blue-fronted Jay (*Cyanocitta stelleri frontalis*). Littlejohn closed the day's work by bowling over a lone coyote in the snow.

One June 13, on the way back to Phillips', Littlejohn noted for a second time the Tolmie Warbler (*Oporornis tolmiei*), and at Phillips' Carriger and I came upon a nest of the Sierra Junco (*Junco oreganus thurberi*) that would have gladdened the heart of a novice. Close to the hotel the birds had built in

absolutely open view, in the corner of an empty box which rested on another. The nest held four fresh eggs and appears in the photograph herewith reproduced (fig. 8).

While en route, and on and after our return to Bijou, we continued finding numerous nests, but these, with a few exceptions, were of those species already recorded. Of more than average interest were four nests of the Western Ruby-crowned Kinglet, two of which, found by the writer on June 14 and 15, held seven and eight fresh eggs, respectively, while the other two, discovered by Carriger, each held eight eggs slightly incubated. Anyone who has not searched for these diminutive bird homes in the thick Sierran woodland must not think, however, they are as easy to locate in the forest as would appear from our unusual success during these days.



Fig. 9. NEST OF WRIGHT FLYCATCHER, WITH BIRD SITTING, NEAR TOP OF YOUNG JEFFREY PINE; NEAR LAKE TAHOE, JUNE 23.

At Rowland's Marsh, on the edge of a sand-spit, I found a nest of the Pintail (*Dafila acuta*) on June 16, made of grasses and a few feathers and holding six slightly incubated eggs, and also shot an immature Bonaparte Gull (*Larus philadelphia*), new for the region, which Littlejohn identified.

My companions left on June 17, and I continued field work alone. On June 19, southeast of Bijou, I flushed a Thick-billed Sparrow from its nest in some thick buck-brush. The nest was made of twigs and bark strips and lined with fine grasses, and contained three eggs in which incubation was well begun. On June 21, not far from this nest, I discovered one of the Green-tailed Towhee in a similar situation, made of twigs and bark strips, lined with fine rootlets, and holding four fresh eggs. The sitting bird flushed, or rather slid off of the nest, in a most unobtrusive fashion, without stirring branch or leaf, and at once disap-

peared. All three of us had spent many a long hour endeavoring to locate a nest of this species, which is not especially abundant here, and I was much gratified in finding this, our first one. The call note of this bird is very similar to that of the Sacramento Towhee, which it replaces in these altitudes.

On June 23 I collected my first nest of the Wright Flycatcher (*Empidonax wrighti*) with a set of four fresh eggs. I had located this nest previously on June 19, when it held a single egg. It was twelve feet up in a small Jeffrey pine (see fig. 9), against the trunk, and was made of grasses, grayish fibres and webs, and lined with rootlets, grasses and feathers. The female parent was taken with the set and is now number 19112 in the University of California Museum of Vertebrate Zoology.

On June 24 a nest of the American Water Ouzel was noted with three fresh eggs, and a Pacific Nighthawk's with a set of two, slightly incubated.

The day following, my last afield, I climbed to a nest of the Cassin Purple Finch twenty-five feet up in a lodgepole pine, but found it to hold but two fresh eggs, although young of the year were now abundant. The day and trip fittingly closed with the finding of five eggs in a dainty little nest of the Western Ruby-crowned Kinglet, cleverly tucked away, almost out of sight, although but twelve feet up in a lodgepole pine.

San Francisco, December 2, 1917.

## THE SCARLET IBIS IN TEXAS\*

By R. A. SELL

WITH ONE PHOTO

THE EXACT status of the Scarlet Ibis (*Guara rubra*) in the avifauna of the Texas coast region has been a subject of speculation and good-natured controversy for at least twenty years. Much of this discussion has been among sportsmen, real estate agents, summer and winter resort boosters, and railway agents. While no data should be considered that does not emanate from a reliable source, it is about as easy to believe some noisy sportsman when he says that he has seen a Scarlet Ibis, as it is to believe a quasi-ornithologist who asserts that "the Scarlet Ibis is never to be seen on the Gulf Coast." Especially is this so when the former presents a mounted specimen and gives a vivid description of the circumstances under which he killed his bird.

Positive evidence is based upon something tangible. This may be a guess,

\*The writing of this article was stimulated by the comments of the Editor of *The Auk* (vol. xxxiv, pp. 360,373) in which he conjectured that the informal reference in a preceding CONDOR article (vol. xix, pp. 43-46) to an occurrence of the Scarlet Ibis in Texas was made without the realization by either the author of that article or by the editor of THE CONDOR that the species had not been previously authenticated as belonging to the avifauna of Texas. The Editor of *The Auk* was correct in his surmise, and all his remarks were quite to the point. Never-the-less it is a satisfaction all around now to be able to present the subject of the occurrence of the Scarlet Ibis in Texas in rather full detail, thanks to the industry of Mr. Sell. We would suggest that the *Auk* Editor might himself have been a bit more critical, in the case of the Colorado record of the "Happy Eagle"—EDITORS.



and even a good healthy lie is worthy of attention; but a negation is weak, uncertain, and at any time ready to collapse. It is the intention of this paper to review the mass of positive data and show what basis there has been for some of the current stories and rumors which are passed around much more frequently than the opinions of expert scientists.

The fact that Doctor Frank Chapman spent several weeks at Corpus Christi without seeing a living Scarlet Ibis wading in the shallows or gracefully flying across the blue waves, only indicates bad luck. And it was very unkind fate which permitted Mr. Nathaniel A. Francis to journey from Boston to Galveston especially to see curiosities of bird life, and then showed him the Scarlet Ibis only in the form of some stale, dust-covered, mummified skins; especially so, when a few weeks later a mere amateur was privileged to see one in the flesh,—or to nurse the illusion that he had seen one, which was just as satisfactory to him. Will the Scripture apply: "Thou hast hid these things from the wise and prudent, and hast revealed them unto babes"?

The task of getting real facts from a conglomeration of amateur data, hearsay testimony, unintentional exaggerations and deliberate prevarications is further complicated by the occasional mistaking of the Roseate Spoonbill (*Ajaia ajaja*) for the Scarlet Ibis (*Guara rubra*). Thus the bird that one Dr. T. J. Slataper of Houston killed in order to get feathers for his best girl, though reported as an Ibis, was undoubtedly a Spoonbill. This happened several years ago and while the Doctor is an enthusiastic lover of wild life and a conscientious exponent of bird-protection, he remains firm in the conviction that the act was fully justified and most gallant because "she asked him to get her the feathers"!

Professor H. P. Attwater of Houston is well known to readers of this magazine as a careful scientist and a tireless field-naturalist. By his lectures and his carefully prepared wild-life exhibits, he has done more to popularize useful knowledge of birds than it would seem possible for any one man to accomplish. His present summary of the case, which must be regarded as authoritative, is essentially as follows:

The Scarlet Ibis is not a resident of Texas; it is not a regular visitant, but according to reliable testimony, it has occurred at irregular intervals repeatedly along the coast. Of late years it is getting very scarce, and an occasional storm-driven bird is about all that can be vouched for. Many of the stories about visits of this bird can be referred to the Roseate Spoonbill. The conditions that favor bringing an Ibis to this locality are not understood.

Mr. W. N. Wilson, who has been connected with a sporting club at Rockport for several years, says: "The last time I saw a Scarlet Ibis, of whose identification I could be certain, was on the 20th of August, 1916. I was within fifty yards of it and could see its sharp bill and ibis pose. No one who has seen both Spoonbills and Ibises has any trouble in distinguishing them. In the fall of 1915 I think I saw one, but I cannot be sure. In the winter of 1912 some men from Illinois were out hunting and one of them brought in an Ibis. Though its feathers were badly torn, they were going to take it home and have it mounted. It is very seldom that the Ibis is seen near here (Rockport) but it is my opinion that there are more of them across on Bird Island and Mustang Island. No one knows where the mounted Ibis at the saloon came from. It was shipped here. It may have been prepared and mounted in Corpus Christi or Galveston or it may have come from New York. I know of several of the Spoonbills being

killed, but when it comes to going down on paper most men are afraid of the law."

Mr. J. B. Sternberg, who managed the sportsmans' club at Rockport, reports seeing the Scarlet Ibis on several occasions during the last eight years. "There was one specimen brought in. It had been killed by a broadside with heavy shot. It is hard to convince some men that it is better to let a bird go than to shoot it all to pieces." Mr. Sternberg thinks that the appearance of the Scarlet Ibis in the vicinity of Rockport is only accidental and that they usually drift in with the "East India highs"—the storms that come into the Gulf of Mexico from the Caribbean Sea.

Mr. C. E. Bainbridge,—a taxidermist of recognized skill, a true sportsman, who understands the real value, economic and esthetic, of wild life, and former scientific assistant to a party of eminent scientists on a South American expedition,—says: "I saw the bird that attracted so much attention the day after the 1916 storm. While I was not close to it and could not be absolutely sure of an identification without having the bird in my hand I called it a Scarlet Ibis. Mr. Sell had named it before I saw it but I was ready to concur with his identification. I have seen many specimens of this bird and also of the Roseate Spoonbill and my judgment was that this individual was a stray Scarlet Ibis. On two occasions in the last seven years I believe I have seen the Scarlet Ibis along the shores of Corpus Christi Bay, though in both instances there was the possibility of my being mistaken. But on one occasion a man brought me a specimen to mount. It was fresh-killed and in good order. I had been away on a trip and my materials were not at hand so I prepared the bird as a skin and let him take it away with him. This specimen was an adult female. In the fall of 1913 two men brought a Scarlet Ibis to my house when I was away from home, and Mrs. Bainbridge, who is quite skillful in making bird-skins, prepared it for them. Her identification is certain for she could not be mistaken when she had the bird in her hand. These birds are very scarce and they will be scarcer yet if every man continues to take a shot at the first one that he sees."

Mr. J. C. Carlson of Robstown, Texas, has on two occasions seen birds supposed to be the Scarlet Ibis. He was in Corpus Christi when a fresh-killed Scarlet Ibis was being exhibited at a hardware store.

Mr. H. E. Lee of Corpus Christi reports seeing two of these birds, or the same bird twice, on the 19th of August, 1916, the day following the great storm. "We were walking along the west shore of the bay, a little less than a mile from the Beach hotel, when a very fine Scarlet Ibis, that had been standing near the edge of the water, raised its wings as if about to fly, but did not fly for several minutes. It raised its head high and pointed its bill towards the water, striking something of a pose. Several other people were coming along behind us, among them some ladies who were talking rather excitedly. The Ibis did not show signs of nervousness, but, without apparent preparation, shot into the air and, after taking several moments to get under way, flew across the bay in the direction of Flour Bluff. Later in the day I saw the same bird, or another one just like it, among the drifts that covered the higher points next to the railroad bridge. It stood almost still and we did not disturb it. I could not be mistaken, for the Scarlet Ibis is an old friend of mine. The first one that I remember of seeing was in the Field Museum at Chicago; the first live one was in a group of wading birds at a zoological park in New York City. There were three of these birds at the St. Louis Fair."



Mr. J. G. Holman of Weathersford, Oklahoma, a retired farmer and business man, who is spending his declining years with the rod and gun, was at Rockport during the 1916 storm and was with people who saw a Scarlet Ibis on a drift of debris. "It was a Scarlet Ibis all right and a very pretty one. This and the Spoonbill are the only red water birds that are ever found here. I have never killed either kind, but know they are not at all alike. The Spoonbill is more frequently seen than the Ibis. I have seen several of them. I saw three of them at one time but I never heard of any one seeing more than one Ibis at a time. In the winter of 1915 I saw a Scarlet Ibis standing in the shallow water below Aransas Pass. It was not fishing. It stood its ground until the boat passed. It

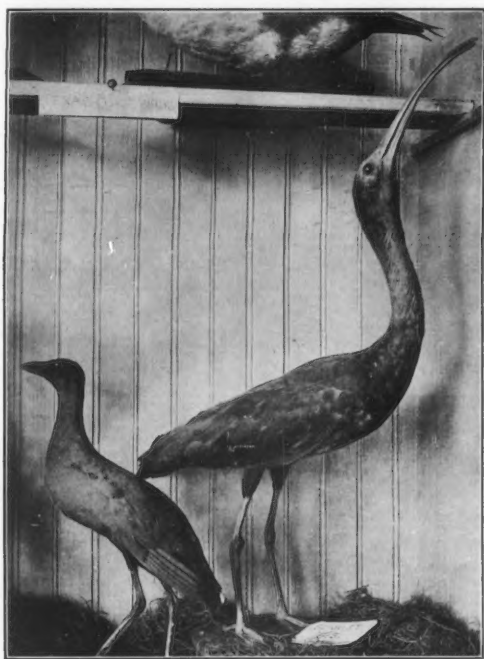


Fig 10. A TEXAS-TAKEN SPECIMEN (AT RIGHT) OF SCARLET IBIS; IN THE ATTWATER EXHIBIT IN THE CITY AUDITORIUM AT HOUSTON.

was in easy range of an ordinary gun. Two days afterwards I saw a Spoonbill and the day after that I saw another Spoonbill. They were along the shore not far from the pier on which I fished."

Mr. J. H. Jones of Garden City, Kansas, who has spent several winters at Corpus Christi and Rockport, reports seeing a Scarlet Ibis wading along the shore. This was in November, 1914. On another occasion he saw a fresh-killed specimen that was being displayed at a sporting goods store in Corpus Christi.

Dr. F. H. Russell of Dallas reports seeing a Scarlet Ibis on one of the narrow sand-spits below Galveston. The bird was standing still and permitted per-

sons to pass within thirty yards of it. As Dr. Russell is well versed in ornithology as well as in entomology, there is every reason to regard his identification as correct. Of course the question can always be raised as to any one's being able positively to identify this bird in the field.

On August 14, 1913, Mr. J. W. Woods, of Houston, who is familiar with the Spoonbill, saw, on the islands opposite Sylvan Beach, a red wading bird which he identified as a Scarlet Ibis. His identification, however, was made at a distance of 300 yards.

Such evidence as illustrated in the last three instances quoted could be extended, and there is much less reason for questioning it than when some noisy sport rents a gun and goes out for a day, coming back with a good story in lieu of game. One such man would do much more advertising than Mr. Jones, Dr. Russell or Mr. Woods. It is not surprising that discerning people in general listen to all reports of strange birds with disinterested indifference.

Mr. I. N. Heibner, of Houston, reports seeing two of these birds in the last five years. Four years ago his hunting partner killed a Scarlet Ibis. This specimen, a medium-sized male, was mounted and placed on exhibition at the Isch Ga Bible Bar. When the business changed hands Mr. Max Brock got possession of the bird and took it to his home. Though the bird had been poorly mounted and was in a bad state of preservation, Mr. Brock refused to part with it.

No less than nine mounted specimens of the Scarlet Ibis can be accounted for: two in Houston, two in San Antonio, three in Galveston, one in Rockport and one in Corpus Christi. Of this number, the one (see fig. 10) in the Attwater exhibit at the City Auditorium, Houston, is the most available of the really authentic birds. This exhibit is open to the public every day. It was prepared with great care by Professor Attwater and sold to the Progressive League at a nominal price. Afterwards the city was induced to take over the exhibit and it was lodged at the City Hall; later it was removed to the City Auditorium. The other specimen in Houston seems to be quite as authentic, as regards capture in Texas.

One of the San Antonio specimens is at the Elks Club and while complete data can not be had, it seems to have been taken near Aransas Pass. The other one was at the Plaza Bar and there was no available data. "Bar-room ornithology" differs materially from scientific ornithology.

Of the three specimens at Galveston, one is in a curio shop and the other two are in bar rooms. At one time there was a taxidermist in Galveston who did a thriving business furnishing stuffed birds, especially ducks and geese, to sportsmen who wanted to take some trophies back home. A man could come there and spend a week at the hotel, loafing and playing cards, then buy some mounted birds or fish and get a good write-up in his home papers. It has not proven possible to get data for any of the Galveston birds.

There is no authentic data available for the specimen at Rockport. The one that is on display at a sporting goods store at Corpus Christi was probably killed on Corpus Christi Bay, but it has been on hand a long time and even the year in which it was killed cannot be definitely fixed.

It seems that to call a bird rare is equivalent to marking it for destruction. There is no doubt that in many cases the report that a Scarlet Ibis was to be seen along the coast, caused men to get their guns and go out to look for it. Even discussion such as the present, if widely circulated, may serve only to hasten extermination.

*Houston, Texas, January 5, 1918.*

## THE SUBSPECIES OF THE OREGON JAY

By H. S. SWARTH

(Contribution from the Museum of Vertebrate Zoology of the University of California)

IN A RECENT paper on the races of *Perisoreus obscurus*\*, the author, Dr. Harry C. Oberholser, arrives at certain conclusions, interesting in themselves but resulting in a systematic treatment of the species which it seems to the present writer contains a large element of error. Briefly, the important features of the paper are the description of a new subspecies, *Perisoreus obscurus rathbuni*, from the Olympic Mountains and Puget Sound regions, the restriction of *P. o. obscurus* to the coast region between central Washington and Humboldt Bay, California, and the inclusion of Vancouver Island in the range of *P. o. griseus*.

In plotting a map of the general range of *Perisoreus obscurus* (roughly, as needs be, considering the few definite stations from which the species has been recorded) it is interesting to note the positions of the type localities of the three described subspecies, *obscurus* from Shoalwater Bay, Pacific County, Washington, *griseus* from Keechelus Lake, Kittitas County, Washington, and *rathbuni* from Lake Crescent, Clallam County, Washington. These three stations are about equidistant apart, a little over a hundred miles distant each from each, forming a small triangle about at the center of the range of the species. As an unfortunate result it follows that however the species *obscurus* may be divided into distinguishable races the individuals selected as types have been taken at points where intergradation of characters might be expected to occur, and not from regions where extremes of differentiation are found.

*Perisoreus obscurus rathbuni* is described as differing from *P. o. obscurus* in darker coloration and somewhat greater size. As regards color it may be observed that there are several bird races of the northwest coast that appear to attain to the darkest extremes of shades on the mainland of the Puget Sound region. In the Bewick Wren (*Thryomanes bewicki*) for example, specimens from this section are appreciably darker than those from Vancouver Island to the northward or from the mainland to the southward. (See Swarth, Proc. Calif. Acad. Sci., 4th ser., vol. 6, 1916, p. 65.) In the Spotted Towhee (*Pipilo maculatus*), although there is no extensive series at hand from the mainland about Puget Sound, still, an adult male from Seattle is darker colored than any Vancouver Island bird. Then, as to the size differences shown by the Oregon Jays of the several regions, it will be noted that *P. o. rathbuni* is somewhat larger than *P. o. obscurus*, to the southward. Typical *obscurus*, again, is larger than birds still farther to the southward, as shown by a large series from the Humboldt Bay region, California, here available.

Thus it is seen that from the southern extreme of the species at Humboldt Bay, northward to Puget Sound, there is gradual increase in size and intensified darkness of color. It is just such a case as that concerning the Wren-tit, presented and commented upon with such clearness some years ago by Osgood, in THE CONDOR (vol. 3, 1901, p. 50). The diagrams illustrating the points made in that paper might well be studied in connection with the questions involved in the

\*Description of a new subspecies of *Perisoreus obscurus*. By Harry C. Oberholser. Proc. Biol. Soc. Wash., vol. 30, Dec. 1, 1917, pp. 185-188.

nomenclature of *Perisoreus obscurus*. In the case of the Oregon Jay it will be noted that the matter is complicated through the fact that the type locality of *P. o. obscurus* is at Shoalwater Bay, Washington, about midway of the longitudinal range of the subspecies. Specimens from this region consequently do not exhibit the extremes of size or color characters shown by those to the northward or to the southward. Consequently, if it is considered desirable to split the race it is doubly hard to determine where to draw the line.

The small size of the Humboldt Bay birds is apparently just as good grounds for the naming of a local race from that point as is the dark color of *P. o. rathbuni*. If this were done, however, what is there left of *P. o. obscurus* but an ill-defined intergradient between the two extremes? This, of course, is really what typical examples of *obscurus* are, but the first name having been applied to a bird from this intermediate region it certainly seems best to let it cover the whole variable coast race.

Another point is involved in the relegation by Dr. Oberholser of the Vancouver Island jays to the subspecies *Perisoreus o. griseus*, upon the basis of specimens collected by the present writer and previously reported upon by him (Univ. Calif. Publ. Zool., vol. 10, 1912, p. 48). In the paper cited these birds were called *P. o. obscurus*, with comment upon certain peculiarities exhibited by the series, in which course due regard was paid to the several questions involved. These birds, according to Dr. Oberholser, are in color similar to *griseus*, but are somewhat smaller than that race, being of about the same size as his *P. o. rathbuni*. He is thus inclined here to place greater weight upon characters of color than of size. I do not agree with him, considering that these birds probably exemplify a final step in the general increase in size northward of *P. o. obscurus*.

As to color, the adults of the Vancouver Island series are either in badly worn plumage or else are molting and not fully feathered. Their apparently paler coloration than some freshly molted and fully feathered birds from the mainland coast region may or may not be due to their imperfect condition. Juveniles from Vancouver Island are slightly darker colored than examples of *griseus* in comparable plumage from the Warner Mountains, California.

At any rate, even should fully feathered Vancouver Island birds prove to be uniformly pale colored, I still do not believe they should be considered the same as *Perisoreus obscurus griseus* from the arid interior. Such a course would be as much a mistake, and a comparable one, as the error now given sanction by the A. O. U. Check-List (1910, p. 266), where the range of "*Junco hyemalis connectens*" (= *Junco oreganus shufeldti*), as described, includes Vancouver Island. The jays do not range over the whole island, but, during the nesting season at least, are restricted to the higher mountains. Any peculiarity in their appearance should be recognized as the probable result of isolation or environment; it seems to me utterly futile to attempt to link together races so remote on the basis of slight and questionable resemblances in some particulars. In this connection attention should again be directed to the exactly comparable case of the Northwest Bewick Wren, cited earlier in this paper.

To sum up, it is the writer's opinion, in view of the foregoing arguments, that the name *Perisoreus o. obscurus* should be applied to the coastal race extending from Humboldt Bay to Vancouver Island, and *P. o. griseus* to the form of the arid interior—exactly the treatment accorded the two subspecies by Ridgway (Birds N. and Mid. Am., III, 1904, pp. 372-374).

Berkeley, California, December 31, 1917.

## BIRD NOTES FROM FORRESTER ISLAND, ALASKA

By GEORGE WILLETT

**D**URING the summer of 1917, which the writer spent on Forrester Island, Alaska, the following fifteen species of birds were noted, not previously recorded by Professor Heath in his article on the birds of the locality (CONDOR, xvii, 1915, pp. 20-41), or by the present writer in his two previous papers (Auk, xxxii, 1915, pp. 295-305; CONDOR, xix, 1917, pp. 15-17). Two species, the Pink-footed Shearwater and the Brandt Cormorant, are, I believe, new to Alaska.

*Phalaris psittacula*. Paroquet Auklet. On May 4, while on the water at the north end of the island, a bird of this species was approached closely enough to permit identification. A few minutes later seven more small auklets were seen that were possibly of the same species.

*Stercorarius longicaudus*. Long-tailed Jaeger. A migration of these birds was noted a few miles off shore on August 24. They were proceeding southward down the channel between Forrester and Dall islands. Probably thirty birds were seen, mostly singly.

*Larus philadelphia*. Bonaparte Gull. An immature bird killed with an oar July 31 was the only one seen.

*Sterna paradisaea*. Arctic Tern. Common in southward migration on August 24, occurring well off shore in company with Sabine Gulls and Long-tailed Jaegers. At least a hundred terns were seen, singly and in small flocks.

*Puffinus creatopus*. Pink-footed Shearwater. On August 24, while about two miles off the north end of Forrester Island, my son called my attention to one of these birds. It was in company with several Sooty Shearwaters, and circled around the boat several times within close range. I am familiar with this bird as occurring along the California coast, and am satisfied as to the identity of the one seen. I believe this is the northernmost record for the species.

*Phalacrocorax penicillatus*. Brandt Cormorant. On June 2, while rowing around Sea Lion Rocks, at the north end of Forrester Island, I noticed a stranger among a bunch of Pelagic Cormorants standing on a ledge over the water. On approaching more closely it was seen to be a Brandt Cormorant in full adult plumage. It was secured and proved to be a male. Is now in the Biological Survey collection.

*Oidemia americana*. American Scoter. A pair of adults was seen at the north end of the island on May 6.

*Anser albifrons albifrons*. White-fronted Goose. On April 24 a flock of sixty or seventy of these geese passed over camp, heading northward. Another flock of about the same size went over April 27, and on the following day a flock of eighteen birds alighted on the water in front of camp and remained for about fifteen minutes.

*Gallinago delicata*. Wilson Snipe. On April 28 a snipe was flushed from a marshy place near camp. It circled and returned, and remained in the vicinity several hours.

*Macrorhamphus griseus scolopaceus*. Long-billed Dowitcher. On June 3 my son reported the presence of a strange wader at some small ponds at the top of the island. Upon accompanying him to this locality the following day, I found the bird to be still there and to be of the above species.

*Aphriza virgata*. Surf-bird. Three birds seen on outlying rocks April 20, one May 4, and another May 6.

*Dryobates pubescens glacialis*. Valdez Downy Woodpecker. A female downy woodpecker seen at camp April 23 was probably referable to this form. It was undoubtedly a straggler from the mainland or one of the larger islands.

*Loxia leucoptera*. White-winged Crossbill. A pair of these birds was seen at close range May 19.

*Iridoprocne bicolor*. Tree Swallow. Two birds seen flying over the bay May 12.

*Regulus calendula grinnelli*. Sitka Kinglet. Several birds seen in the woods May 4. Probably a migrant only on this island.

Los Angeles, California, January 5, 1918.

# SEVEN NEW OR NOTEWORTHY BIRDS FROM EAST-CENTRAL CALIFORNIA

By JOSEPH GRINNELL

(Contribution from the Museum of Vertebrate Zoology of the University of California)

THE FIELD WORK carried on by the California Museum of Vertebrate Zoology during 1917, in that portion of California comprising Mono and Inyo counties, brought to light some new facts in regard to the general distribution and geographic variation of western birds. The more prominent of these discoveries are set forth in the present paper, whereby seven new names are added to the list of the birds known to belong to California.

## *Glaucidium gnoma pinicola* Nelson

Rocky Mountain Pigmy Owl

An adult female of this owl (no. 27887, Mus. Vert. Zool.) was taken by the writer September 30, 1917, at 6200 feet altitude some three miles east of Jackass Spring, in the northern section of the Panamint Mountains, Inyo County. The place of capture was in the pinyon belt, and here the species must have been common, for the characteristic notes were heard almost nightly during the period from September 30 to October 7.

The specimen shows nearly complete fresh plumage. As compared with examples of *Glaucidium gnoma californicum*, in the same condition, from the Sierra Nevada, it is of slightly greater size, slatier (hair brown) tone of coloration on the dorsal surface, and has the streaking beneath blacker. Chord of wing, 101.1 mm.; tail (measured by the Ridgway method), 72.1; culmen from cere, 12.0. The features given accord almost exactly with the characterization of *pinicola* furnished by Ridgway (Birds N. and Mid. Amer., pt. vi, 1914, p. 789). Furthermore, Mr. E. W. Nelson, the original describer of *pinicola*, who was recently shown the skin offhand without his previous knowledge of its locality, instantly pronounced it to belong to *pinicola*.

## *Dryobates villosus leucothorectis* Oberholser

White-breasted Woodpecker

This proved to be the representative race of the Hairy Woodpecker in the White and Panamint mountains, in Mono and Inyo counties. As compared with *Dryobates villosus hyloscopus*, of the southern Sierras and southern California generally, the Inyo birds are notably whiter beneath and smaller billed. As compared with *D. v. orius* of northeastern California the Inyo birds are decidedly smaller throughout. The following table serves to show the localities and measurements of the specimens of *D. v. leucothorectis* taken.

No.	Sex	Locality	Collector	Date	Wing	Tail	Exposed culmen
27892	♀	Hanaupah Canyon, 8000 ft., Panamint Mts.	J. Dixon	June 2, 1917	124.6	83.2	26.1
27893	♂	Hanaupah Canyon, 8000 ft., Panamint Mts.	J. Dixon	June 2, 1917	123.8	70.5 <sup>1</sup>	28.2
27894	♂	3 mi. east Jackass Spr., 6200 ft., Panamint Mts.	J. Grinnell	Sept. 30, 1917	128.3	82.6	28.0
27895	♂	Silver Canyon, 7000 ft., White Mts.	H. G. White	July 19, 1917	127.2	62.0 <sup>1</sup>	28.4
27896	♀ juv.	McAfee Cr., 9000 ft., White Mts.	A. C. Shelton	Aug. 9, 1917	116.5	76.5	25.0

<sup>1</sup>Worn off at end.



It may be noted here that Oberholser in his revision of the Hairy Woodpeckers (Proc. U. S. Nat. Mus., vol. 40, 1911, p. 611) considered birds from the Piute Mountains, Kern County, as inclining somewhat towards *leucothorectis*. He listed them under *hyloscopus*, however, as also specimens from the White Mountains, the latter without comment.

***Selasphorus platycercus* (Swainson)**

Broad-tailed Hummingbird

It is at last possible to announce an absolutely conclusive instance of the occurrence of this bird in California. On August 13, 1917, Mr. H. G. White, field assistant for this Museum, was so fortunate as to secure an adult female Broad-tailed Hummingbird (no. 27941, Mus. Vert. Zool.), together with its nest (no. 1724) and two half-grown young (nos. 28877, 28878, in alcohol), in the White Mountains, Inyo County. This was at about 9000 feet altitude, two miles northwest of the Roberts Ranch, on the east flank of the White Mountains in the upper part of Wyman Creek canyon. The nest was situated three feet above the ground in a symphoricarpos bush growing on the canyon wall at the edge of a black rock slide and about twenty yards from the bed of the canyon. This was in the cercocarpus belt near the upper edge of the pinyon belt; life-zone, low Canadian or Transition.

The present record quite satisfactorily substantiates that by Swarth (CONDOR, xviii, 1916, p. 130) of a bird seen by him (but not taken), in Mazourka Canyon, Inyo Mountains, May 24, 1912. The present announcement, however, does not mean the re-establishment of any of the three old records of the species for California, these having been disposed of as faulty in various ways (see Grinnell, Pac. Coast Avif. no. 11, 1915, pp. 184-185). The indications are that this Rocky Mountain species of hummingbird occurs regularly as a summer visitant to the high mountains along the eastern border of California, east of Owens Valley.

***Calcarius ornatus* (Townsend)**

Chestnut-collared Longspur

An immature female of this species, new to California, was taken by the writer at the "Cow Camp" on Lee Flat, 5200 feet altitude, fifteen miles due north of Darwin, Inyo County, September 28, 1917. This bird (no. 28260, Mus. Vert. Zool.) is in complete first-winter plumage. It was alone on the ground near the seepage from a cement water-trough, and was apprehended among the small birds visiting the oasis by reason of its peculiar call-note.

***Pipilo maculatus montanus* Swarth**

Mountain Towhee

The series of spotted towhees (nos. 28445-28456, Mus. Vert. Zool.) obtained in the Panamint Mountains, Inyo County, is found to properly come under the name *montanus*. As compared with *P. m. curtatus* of the Mono Lake country and northern Nevada, the Panamint birds show decisively greater length of tail and longer hind claws. As compared with *P. m. falcinellus* from the west slope of the central Sierra Nevada, the Panamint birds show longer tail and much greater extent of white markings.

Two examples in unworn fall plumage, taken by Joseph Dixon and the writer three miles east of Jackass Spring, in the northern portion of the Panamint Mountains, September 30 and October 3, respectively, 1917, show measurements as follows. No. 28455, male immature (that is, in full first-winter plumage):

wing, 90.3 mm.; tail, 108.2; culmen, 12.8; tarsus, 27.5; hind toe and claw, 19.2; length of white spot on inner web of outer rectrix, 31.5. No. 28456, female adult: wing, 84.4 mm.; tail, 100.0; culmen, 13.0; tarsus, 28.0; hind toe and claw, 20.7; length of white spot on inner web of outer rectrix, 29.5. The above measurements will be best understood when compared with the tables in Swarth's revision of the California spotted towhees (CONDOR, xv, 1913, p. 175).

In establishing this identification I have had the advantage of the experience of Mr. Harry S. Swarth with this group. He has gone over the material here reported upon and has concurred in the above conclusions.

***Sitta carolinensis tenuissima*, new subspecies**

Inyo Slender-billed Nuthatch

*Type*.—Male adult, no. 28716, Mus. Vert. Zool.; Hanaupah Canyon, 8700 feet altitude, Panamint Mountains, Inyo County, California; June 1, 1917; collected by J. Dixon; orig. no. 6114.

*Diagnostic characters*.—Similar to *Sitta carolinensis aculeata* from west-central California, but bill much longer and slenderer (see fig. 11), size larger, back of a darker tone of gray, and flanks paler; similar to *S. c. nelsoni* from southern Arizona, but bill much slenderer (see fig. 11), and sides, and lower surface generally, whiter.



Fig. 11. BILLS OF THREE WESTERN SUBSPECIES OF WHITE-BREASTED NUTHATCH (*Sitta carolinensis*); ALL NATURAL SIZE.

- a. *S. c. aculeata*, ♂ AD.; NO. 5344, MUS. VERT. Zool.; MT. DIABLO, CONTRA COSTA CO., CALIF.; APRIL 18, 1896.
- b. *S. c. tenuissima*, ♂ AD.; NO. 28716, MUS. VERT. Zool.; PANAMINT MTS., INYO CO., CALIF.; JUNE 1, 1917.
- c. *S. c. nelsoni*, ♂ AD.; NO. 27781, MUS. VERT. Zool.; SIERRA ANCHA, GILA CO., ARIZ.; JUNE 24, 1917.

*Remarks*.—A series of 21 specimens of this new nuthatch (nos. 28716-28736, Mus. Vert. Zool.) from the Panamint and White mountains includes eleven young and ten adults. The latter are listed in the accompanying table of measurements. In some respects this race is intermediate between the Rocky Mountain form and that of the Pacific coast region, but in the extreme slenderness of bill differs from either. Judging from the table of measurements given by Ridgway (Birds N. and Mid. Amer., pt. III, 1904, p. 445) the range of *S. c. tenuissima* is likely to be found to extend north along the western rim of the Great Basin at least to Fort Klamath, Oregon.

In view of Ridgway's synopsis and descriptions of the previously known forms of *Sitta carolinensis* (*loc. cit.*, pp. 440-450), it seems unnecessary to go into further comparisons here.

MEASUREMENTS (IN MILLIMETERS) OF TEN ADULT SPECIMENS OF *SITTA CAROLINENSIS TENUISSIMA*, FROM THE INYO REGION OF CALIFORNIA

Mus. No.	Sex	Locality	Date (1917)	Wing	Tail	Exposed culmen	Depth of bill at base
28716	♂	Hanaupah Canyon, 8700 ft., Panamint Mts.	June 1	91.3	52.1	21.7	4.0
28717	♂	Head of Silver Canyon, 9800 ft., White Mts.	July 13	92.4	50.5	20.4	3.9
28718	♂	Silver Canyon, 7000 ft., White Mts.	July 18	89.5	49.9	20.0	3.8
28721	♂	Big Prospector Mead., 10600 ft., White Mts.	July 25	87.9	44.8	20.2	3.7
28723	♂	Big Prospector Mead., 10360 ft., White Mts.	July 26	86.8	45.7	20.0	4.0
28728	♂	Poison Creek, 9800 ft., White Mts.	Aug. 3	89.4	52.3	21.0	3.7
28736	♂	3 mi. E. Jackass Spr., 6200 ft., Panamint Mts.	Sept. 30	89.3	47.8	20.0	3.8
28719	♀	Silver Canyon, 7000 ft., White Mts.	July 18	86.0	45.0	20.0	3.8
28722	♀	Big Prospector Mead., 10500 ft., White Mts.	July 25	87.1	44.0	20.3	3.8
28727	♀	Big Prospector Mead., 10300 ft., White Mts.	July 30	85.0	43.2	21.0	4.0

*Hylocichla guttata polionota*, new subspecies

White Mountains Hermit Thrush

*Type*.—Male immature (passing from juvenile to first annual plumage, the latter predominating); no. 28848, Mus. Vert. Zool.; Wyman Creek at 8000 feet altitude, east slope of White Mountains, in Inyo County, California; August 18, 1917; collected by H. G. White; orig. no. 1305.

*Diagnostic characters* (among the races of *Hylocichla guttata*, for general definitions of which see Ridgway, *Birds N. and Mid. Amer.*, pt. iv, 1907, pp. 35-51).—Size large, between that of *H. g. sequoiensis* of the Sierra Nevada and of *H. g. auduboni* of the Rocky Mountains, nearest the former. Color of top of head and dorsum different from that in either of these races and, in fact, from that in any previously known race of Hermit Thrush. The tone of this coloration is the "olive-brown" of Ridgway (*Color Standards and Color Nomenclature*, 1912, pl. 40), and is close to that of the corresponding areas in the Olive-backed Thrush (*Hylocichla ustulata swainsoni*); it is if anything even more slaty.

*Measurements*.—Average of 12 males, all from the White Mountains: Wing, 98.6; tail, 73.8; exposed culmen, 12.7; tarsus, 29.8. For extremes, see accompanying table. The specimens measured are all but two full-grown juvenals. As regards wing and tail the dimensions of these young birds are, of course, perfectly valid; for there is no molt in the spring and the rectrices and remiges of the same aged birds the next summer (then "adult") would be the same feathers, only more or less badly abraded. The measurements of culmen and tarsus are, however, less in these juvenals than in older (adult) birds, and this must be taken into account in comparisons with summer adults.

*Range*.—In summer, the Canadian and Hudsonian zones on the White Mountains, in Mono and Inyo counties, California. Places of capture of our 14 specimens were as follows: Cottonwood Creek at 9000-9200 feet, 7; Poison Creek at 9500-9900 feet, 3; Wyman Creek at 8000 feet, 4.

*Remarks*.—The race *sequoiensis*, of the Sierra Nevada just across Owens Valley to the west and in plain sight from the White Mountains, is ordinarily referred to as a pale-colored or even grayish-colored Hermit Thrush; but compared with *polionota*, the contrast in dorsal view is as of brown with slate-gray. The resemblance of *polionota* to the Olive-backed Thrush is striking.

The juvenile plumage of *polionota* is as distinctive in slaty tone of coloration as is the first annual. The two breeding "adults" in the series are in such worn

condition that the plumage has lost its color values. A few fresh new feathers, however, show among the primary wing coverts and on the alula; and so far as these go they indicate a coloration of adult annual plumage just like that of the first annual.

In an examination of hundreds of specimens of Hermit Thrushes from throughout the United States elsewhere than from the White Mountains, the writer has been unable to find one referable to the race *polionota*. It would seem that this subspecies, like some other migratory birds of the high mountains of the southwest, goes south in the fall to, and back again in the spring from, some far southern winter home without touching the lowlands within hundreds of miles of its restricted summer habitat.

The entire series of fourteen White Mountains Hermit Thrushes was secured through the energetic efforts of Mr. Halsted G. White, field assistant during the summer of 1917.

LIST AND MEASUREMENTS (IN MILLIMETERS) OF SPECIMENS OF *HYLOCICHLA GUTTATA POLIONOTA* COLLECTED IN THE WHITE MOUNTAINS, MONO AND INYO COUNTIES, CALIFORNIA, IN 1917

No.	Sex	Date	Wing	Tail	Exposed culmen	Tarsus
28838	♂ ju.	July 31	96.6	71.2	12.9	28.8
28840	♂ ju.	July 31	99.5	73.0	12.2	29.1
28842	♂ ju.	Aug. 1	95.3	72.0	11.7	29.8
28843	♂ ju.	Aug. 1	101.6	76.8	.....	30.1
28844	♂ ad. <sup>1</sup>	Aug. 3	97.5	73.0	14.3	31.2
28845	♂ ad. <sup>1</sup>	Aug. 3	99.2	77.3	13.3	28.8
28846	♂ ju.	Aug. 3	98.6	74.6	13.1	30.5
28847	♂ ju.	Aug. 3	101.3	77.3	12.9	30.7
28848	♂ im. <sup>2</sup>	Aug. 18	96.9	73.0	12.4	29.7
28849	♂ im.	Aug. 18	97.5	69.7	12.1	28.8
28850	♂ im.	Aug. 18	98.2	72.8	12.4	30.4
28851	♂ im.	Aug. 18	101.1	74.7	12.1	30.3
28839	♀ ju.	July 31	92.6	67.0	.....	28.9
28841	♀ ju.	Aug. 1	96.5	71.5	11.7	29.7

<sup>1</sup>Badly worn.  
<sup>2</sup>Type.

Berkeley, California, December 27, 1917.

## FROM FIELD AND STUDY

**Observations in a Swallow Colony.**—The sea-wall a few miles from Oceanside in San Diego County rises abruptly from a very narrow beach and varies in height from twenty-five to one hundred feet. The materials forming this bluff are in horizontal layers, of clay, cobble-stone, sandstone, and shells, interspersed in a few places with solid masses of very hard rock.

In one of the sandstone strata a colony of Bank Swallows (*Riparia riparia*) have established their "cliff dwellings". Rising sharply from the beach, this layer of compact sand is nowhere over fifteen feet in thickness, while topping it is a stratum of cobble-stone and clay. That this cliff has been the home of many generations of swallows is very certain, as there are hundreds of abandoned tunnels and nests. Each year as the face of the wall is eroded and crumbles away the tiny tunnels are excavated a few inches deeper, and the new nest built at the very end.

No tunnels were found to exceed three feet in depth while the most of those examined were just the length of one's arm. In nearly every case it was an old tunnel that was being used, and as many as four or five old nests could be found buried along the passage. Building material used was a fine dark brown, grassy sea-weed, gathered from

the beach and twisted around by the birds into a very compact nest. This was lined with a few white feathers, mostly those of the Western Gull. In many places these balls of sea-weed, remains of old nests, could be seen at the very entrances to the burrows.

These "cliff dwellings" were not entirely occupied by Bank Swallows, for a number of pairs of the Cliff Swallow (*Petrochelidon lunifrons lunifrons*) were also at home. In several cases typical bottle necked mud nests were built over entrances to old rooms of the Bank Swallow and contained eggs of *lunifrons*. Apparently an old Bank Swallow nest of sea-weed which was just at the entrance to a tunnel was used, and the entrance "bottled up". In one instance eggs of the Cliff Swallow were found at the end of a two-foot tunnel, lying in a typical sea-weed nest of the Bank Swallow but without any feathers for lining. Not more than four eggs were found in any nest of *lunifrons* while sets of *riparia* ranged from four to seven. At the time of our visit, May 13, 1917, most of these swallow homes held young or eggs far advanced in incubation. One nest of the Bank Swallow with a set of five eggs contained a decided runt, measuring .36x.30 inches and with no yolk.—NELSON K. CARPENTER, *Escondido, California, January 7, 1918.*

**The Rough-legged Hawk in Western Washington.**—One of the most interesting features of the fall migration of hawks, through this part of the state, was the taking on October 20, 1917, of two Rough-legged Hawks (*Archibuteo lagopus sancti-johannis*). The first, a male bird, was collected by Mr. J. Hooper Bowles on the Tacoma tide flats. Seeing something on a cross-bar of a distant telegraph pole that looked very hawk-like, Mr. Bowles carefully approached for a closer view, keeping the pole between himself and the bird. In this way he obtained an excellent "close up", and was, indeed, surprised to find it a Rough-leg.

The bird sat lengthwise of the cross-bar, on the sunny side of the pole, with wings half drooping. This odd attitude was observed by Mr. Bowles for a minute or more before collecting; when the hawk was brought to hand, he found the wings and tail soaking wet, which probably accounted for the strange position on the bar. A freshly eaten field mouse, found in its stomach may have been caught swimming across one of the many channels of the flats, and the hawk had probably been obliged to take a partial dip to secure its prey.

The other bird, also a male, was, curiously enough, taken by the present writer on the same day and only about a mile distant from where Mr. Bowles got his. The latter was taken in the morning, however, and mine in the afternoon. In coloration, the two are almost alike, and in very good plumage, though the one I collected was afflicted by a bad case of what we might call "scaly leg", so common among chickens. Several big growths were found on each leg, one or two of which had been picked by the bird and were sore-looking and bloody.

My specimen was presented to Mr. D. E. Brown, of Seattle, who reported finding the body covered with sores when he skinned it. The stomach of this one also contained a field mouse.

Though the Rough-leg is somewhat of a wanderer, local bird men have few, if any, records of it for this vicinity, although east of the Cascades it is frequently met with.—E. A. KITCHIN, *Tacoma, Washington, February 1, 1918.*

**Wood Duck at San Diego.**—On November 16, 1917, a female Wood Duck (*Aix sponsa*) in fine condition and evidently just shot by some hunter, was picked up near a water hole by Mr. Jas. McAuliffe and brought to me while still warm. The bird is now in the collection of the San Diego Natural History Society. This is the first time I have seen this species here, and it is worth recording the occurrence of this rare visitor to this place.—HENRY GREY, *San Diego, California, January 8, 1918.*

**Whip-poor-will in New Mexico in March.**—The characteristic call-notes of the Whip-poor-will, uttered repeatedly by two birds, presumably the Stephens Whip-poor-will (*Seiophthalis vociferu arizonae*), were heard for some minutes preceding daylight on March 2, 1917, at Rodeo, New Mexico. This place is near the Arizona line, in the extreme southwestern part of Grant County. The altitude being above 4000 feet, the winter months are chilly, and on the date mentioned the freezing point was registered.

Notwithstanding this early appearance within our border, the usual arrival of the



species upon the breeding grounds, at least in that portion included in the Chiricahua Mountains, Arizona, is very much later. In this range of mountains, about fifteen miles distant from Rodeo, the Stephens Whip-poor-will is a fairly common summer visitant to the oak region, but I did not record it there during 1917 until May 21, this at Paradise Post Office.—AUSTIN PAUL SMITH, *Rio Hondo, Texas, December 29, 1917.*

**Some Pugnacious Coots.**—Our boat house rests in a cut opening out of Butte Slough, in Colusa County, California. Between the end of the boat house and the current of the slough, there are sixty or eighty feet of still water; three Mud Hens (*Fulica americana*) have taken possession of this spot. They have grown quite tame; not only do they come up to the boat house for their food, but when hungry swim up and are clamorously insistent with their "put-put-put".

The men have frequently told me that they were murderous fighters against their own kind, and one day I was a witness of such a fight. A strange Mud Hen swam from the creek into the quiet water. The first of the three to see him attacked the stranger at once, "putting" harshly, and the intruder gave battle without the slightest attempt to retreat. They pecked at each other savagely. The other two boat house Mud Hens swam up to the fray, one of them joining in, the other, the smallest of the three and probably the female, simply looking on. In time they pecked the strange Mud Hen into a state of exhaustion. It was manifestly too weak to fly, but tried to make its escape by swimming. They followed it up, and one actually stood on its body while the other held its head under the water until it was dead. When satisfied of this, they left it.

The men tell me that nearly every day they murder one of their kind in this manner, and yet oddly enough they pay not the slightest attention to crippled ducks which drift down the current and often take refuge in the same cut. It would, of course, be perfectly easy for the Mud Hen which is attacked to escape by flight, but in no instance, my men say, has one ever attempted to do so.

The third and smaller Mud Hen never takes part in the fight, but is always an interested spectator. Once a battle began when only one of the boat house Mud Hens was present, but its call soon brought the other two, which had drifted down the creek, and they came back to the rescue flying. It seemed to me to be a curious phase of pugnacity, considering the gregarious habits of the bird.—F. W. HENSHAW, *San Francisco, January 26, 1918.*

**The Name of the American Barn Swallow.**—In a recent paper entitled "The Birds of the Anamba Islands" (Bull. U. S. Nat. Mus., no. 98, June 30, 1917, pp. v+75, 2 pls.), Dr. H. C. Oberholser discusses the relationships of the American Barn Swallow with the closely similar forms of the Old World. He concludes that intergradation is complete through several intervening races between *Hirundo rustica*, the common Swallow of Europe, and our own Barn Swallow, and hence adopts the trinomial form of designation for the latter—*Hirundo rustica erythrogaster*. Also the race *palmeri* once proposed by me from Alaska is not deemed tenable. With regard to both contentions the supporting facts presented seem to me now conclusive.

In the spelling of the subspecific name of the American form, however, I believe Oberholser to be wrong, and *erythrogaster* should be the proper spelling, not *erythrogasteris*. The term *erythrogaster* cannot be considered an adjective. It is a Greek noun, retaining its own gender and case when Latinized. *Hirundo* is feminine, but that should not affect the ending of the third term of the trinomial the case of which is, in this instance, nominative. If there were any doubt about this, final appeal to the original describer ought to settle it. The bird was described as *Hirundo erythrogaster*, which shows well enough the writer's intention. The name of our Barn Swallow ought to stand as *Hirundo rustica erythrogaster*. I am indebted to Professor W. A. Merrill, of the Latin department of the University of California, for pertinent information in connection with my present enquiry.

There seems to be a tendency even yet towards unnecessarily tampering with the spelling of names as originally proposed by describers. In this regard I wish also to protest against Oberholser's misquotation of my name *Guiraca caerulea salicarius*, emending it to *G. c. salicaria* (Auk, vol. 34, April, 1917, p. 204). *Salicarius* was employed as a noun, obviously.—J. GRINNELL, *Museum of Vertebrate Zoology, Berkeley, California, January 9, 1918.*



**Two More Records for the Widgeon in Washington, and Other Notes.**—On January 13, 1918, two fully adult males of the European Widgeon (*Mareca penelope*) were shot on the Nisqually Flats, Thurston County, Washington, and brought in to Edwards Bros., of Tacoma, for mounting. They are in magnificent plumage and Mr. Edwards, who is a true ornithologist, expressed sincere regret that he could not make them into skins for scientific use.

Further notes of interest have reached me from Mr. Walter F. Burton, Victoria, B. C., regarding the Horned Owl invasion of this season. As was the case in Washington, they were not so plentiful as last season. Mr. Burton writes in part: "Dec. 30, 1917. We have paid out 50c bounty on eighty-five owls so far (Dusky Horned). They are not as plentiful as last winter". Truly they must have become scarce in their natural habitat. In this connection Mr. Ernest S. Norman, Kalevala, Manitoba, writes me that Horned Owls of any kind have suddenly disappeared from his locality, where formerly they were fairly common. It would be interesting if more notes could be had from northern collectors on this subject.

The Snowy Owls (*Nyctea nyctea*), in spite of almost summer conditions here, have been even more numerous in some parts of Washington than they were last season. A possible cause for these invasions of the large owls has been suggested to me by Mr. D. E. Brown, of Seattle, Washington. He says that a friend, recently down from Alaska, informed him that the rabbits up there were practically exterminated about a year ago by what he thought must have been some kind of disease, which would just about coincide with the first great owl migration of 1916-1917. In addition to this it is well known from several sources that ptarmigan have been scarce in Alaska for the past year. There is little doubt that rabbits and ptarmigan, especially the rabbits, form two important items in the diet of the larger owls during the winter months, so that the search for food may have started hundreds of them upon what proved to be very long journeys.

One cannot help feeling a great deal of sympathy for the Snowy Owls, as their stomachs have seldom contained any food this winter, in spite of the fact that they are nearly always surrounded by hundreds of ducks of many species. Mammals are scarce in this locality and it seems evident that these owls only eat birds when forced to do so by extreme hunger. Quite the contrary is the case with the Horned Owls, which are killers of birds and mammals alike, although they seldom pay much attention to the smaller species of either.—J. H. BOWLES, Tacoma, Washington, January 28, 1918.

**Do Purple Martins Inhabit Bird Boxes in the West?**—This year the writer erected a martin box at Albuquerque, New Mexico. I have since kept my eyes open for instances of successful martin boxes in the southwest, but have found none. Last summer I found Purple Martins (*Progne subis*) nesting abundantly in pine snags killed by impounded waters at Lake Mary and Coleman Lake, in Coconino County, Arizona. It occurs to me that this bird may not yet have become domesticated in the west. Can any reader of THE CONDOR enlighten me on this question?—ALDO LEOPOLD, Albuquerque, New Mexico, February 21, 1918.

**Two Midwinter Records for San Francisco County, California.**—

Holboell Grebe (*Colymbus holboellii*). On December 23, 1917, while taking a Christmas bird census for *Bird-Lore* with Mr. C. R. Thomas of Berkeley, California, a Holboell Grebe was seen at Stow Lake, Golden Gate Park, a species that is very uncommon in this region. Kobbe writes in *The Auk* (1901) that an individual was taken at Oakland in 1882, and that several were seen off the Presidio shore in 1900. Mr. Loomis also found this Grebe uncommon at Monterey Bay. The Grebe was last seen by the present writer at Stow Lake, February 3, 1918.

Whistling Swan (*Olor columbianus*). Two swans, presumably of this species, were seen feeding at Lake Merced December 23, 1917. This is the first time that I have seen the species in this region and I believe that this is the first record for San Francisco County.—HAROLD E. HANSEN, San Francisco, February 8, 1918.

# THE CONDOR

A Magazine of  
Western Ornithology

Published Bi-Monthly by the  
Cooper Ornithological Club

J. GRINNELL, Editor

HARRY S. SWARTH, Associate Editor

J. EUGENE LAW

W. LEE CHAMBERS } Business Managers

Hollywood, California: Published Mar. 20, 1918

## SUBSCRIPTION RATES

One Dollar and Fifty Cents per Year in the United States, payable in advance.

Thirty Cents the single copy.

One Dollar and Seventy-five Cents per Year in all other countries in the International Postal Union.

## COOPER CLUB DUES

Two Dollars per year for members residing in the United States.

Two Dollars and Twenty-five Cents in all other countries.

Manuscripts for publication, and Books and Papers for Review, should be sent to the Editor, J. Grinnell, Museum of Vertebrate Zoology, University of California, Berkeley, California.

Claims for missing or imperfect numbers should be made of the Business Manager, as addressed below, within thirty days of date of issue.

Cooper Club Dues, Subscriptions to The Condor, and Exchanges, should be sent to the Business Manager.

Address W. Lee Chambers, Business Manager, Eagle Rock, Los Angeles County, California.

## EDITORIAL NOTES AND NEWS

The following individuals, members of the Cooper Club, either now or formerly, are known to the editors of THE CONDOR as having entered into military service. There are doubtless others to be added to the list; regarding these we solicit information, to the end that our war service records be kept up to date. We propose to use this column for revised lists from time to time.

Albert L. Barrows, First Lieutenant, Infantry, National Army, Camp Lewis, Washington.

Allan Brooks, Major, Second Army School of Sniping, British Expeditionary Forces in France.

Charles L. Camp, First Lieutenant, Field Artillery, in France.

Edward A. Goldman, Major, Sanitary Corps, National Army.

F. Harvey Holden, Captain, Coast Artillery, National Army.

Remington Kellogg, Engineers (Forest), in France.

Joseph Kittredge, Jr., First Lieutenant, Engineers (Forest), in France.

Charles A. Kofoid, Major, Sanitary Corps, National Army.

Sidney B. Peyton, Machine Gun Company, Camp Kearny, California.

John C. Phillips, Medical Corps, Fort Benjamin Harrison, Indiana.

George W. Schussler, Camp Lewis, American Lake, Washington.

Alfred C. Shelton, Base Hospital, Camp Lewis, American Lake, Washington.

Tracy I. Storer, Base Hospital, Camp Lewis, American Lake, Washington.

Adriaan van Rossem, Camp Lewis, American Lake, Washington.

John P. Young, Captain, Camp Dix, New Jersey.

Those who collect bird-skins would greatly enhance the scientific value of their specimens if they would determine correctly the age of their birds. This is possible with passerine birds, and some others, up to the eighth or tenth month of their age by observation of the condition of the skull. An excellent demonstration of this method is given by Mr. James P. Chapin in his paper on *The Classification of the Weaver-Birds* (Bull. Amer. Mus. Nat. Hist., vol. 37, 1917, p. 258, fig. 9). Mr. Chapin's paper also serves to show how important it may be in correctly diagnosing species and higher groups to know the effects of age on plumage and dimensions of parts.

Dr. Jonathan Dwight is now putting into final shape for publication a monographic revision of the North American juncos, upon which he has been engaged for some years past. With such a wide diversity of opinions as expressed in the last two authoritative treatments of the genus—Ridgway, in part 1 of his *Birds of North and Middle America*, and the A. O. U. *Check-List*—another careful analysis of the facts, especially if put forth as a special study rather than part of a more general work, will be welcomed by all who have had occasion to puzzle over the variations in this group of birds.

Mr. H. S. Swarth has begun a study of the Fox Sparrows, especially as regards migration and local distribution upon the Pacific Coast. The incentive for this work arose in part from the increasing numbers of specimens being sent to the Museum of Vertebrate Zoology for identification. While in this manner a large proportion of the skins in Californian collections has probably come under his inspection, he would welcome the opportunity of examining any additional material now available.

Mr. R. G. Hazard, of Peace Dale, Rhode Island, and latterly of Santa Barbara, California, a life member of the Cooper Club,

died at Santa Barbara on January 23, 1918, after having reached the sixty-third year of his age. Mr. Hazard was well known as an enthusiastic oologist and as a man ever ready to advance the interests of others in this field.

#### PUBLICATIONS REVIEWED

A STUDY OF THE INCUBATION PERIODS OF BIRDS—WHAT DETERMINES THEIR LENGTHS? By W. H. BERGTOLD, M. D., M. Sc. Member of the American Ornithologists' Union. The Kendrick-Bellamy Co., Denver, Colorado. 1917 (our copy received June 20, 1917); 8vo, pp. 1-109.

The above title brings to the attention of bird observers a field of observation in which, as the author well states, there is "a lamentable dearth of information". Nevertheless the data finally gathered and here presented is really of astonishing quantity (though not always of acceptable degree of accuracy), and has proven sufficient for the establishment tentatively of several interesting conclusions. Among these are that length of incubation is not directly or closely correlated with either size of the bird, or size of the egg, or size of the yolk, or degree of precocity of the young, or age of the female, or longevity of the species. There is, however, a "true" incubation period (secured by allowing for all factors which serve to prolong the process abnormally) which is constant and characteristic of each species, and this is directly correlated with the body temperature—the higher the temperature the shorter the incubation period. Now, such data as are available seem to show that the lower or more generalized a bird in the phylogenetic scale, the lower its temperature; so that, again, the incubation period allies itself in degree of abbreviation directly with degree of phylogenetic advancement of the species concerned.

The above brief epitome is inadequate to give a fair idea of Bergtold's discussion of the many phases of the subject involved, and we can only recommend that interested readers take the first opportunity to fully apprise themselves of the contents of the book.

Referring again to lack of information, the following are the facts called for by Bergtold, if further enquiries along this and related lines are to be pursued fruitfully: Exact length of incubation period of birds and reptiles; exact length of incubation of birds in polar and tropical regions; the period of viability of birds' eggs; the weights of birds, preferably of the breeding female; the

weights of birds' eggs; the effects of superheating on birds' and reptiles' eggs; the optimum incubation temperatures of birds' and reptiles' eggs; bird temperatures; temperatures under the incubating bird; reptile temperatures; minutiae of bird physiology.

Egg-collectors, skin-collectors, and nature students of the opera-glass contingent are here on common ground in that all are in positions to contribute importantly to the stock of facts needed.—J. GRINNELL.

THE DISTRIBUTION OF BIRD-LIFE IN COLOMBIA; A CONTRIBUTION TO A BIOLOGICAL SURVEY OF SOUTH AMERICA. By FRANK M. CHAPMAN. Bulletin of the American Museum of Natural History, vol. xxxvi, 1917, pp. 1-x, 1-729, 41 plates (some colored), 21 text figs.

The ultimate object of the several years of zoological exploration which the American Museum of Natural History has been prosecuting in South America is, we are told, the discovery of the geographic origin of South American life. As a step toward the attainment of this end the publication here reviewed is devoted to a careful study of the birds of a relatively restricted part of the continent, in their racial variation and geographic distribution—of the "life zones" and "faunal areas", and the species and subspecies inhabiting them. As explanatory of the peculiar interest attached to the study of the birds of Colombia, the chapter devoted to "a review of Colombian ornithology" is briefly descriptive of the "Bogota" collections, productive of so many new species of birds in years gone by, pointing out the value of these collections in the early study of the birds of this region and their absolute uselessness in a present day investigation relative to the distribution of species. Californian ornithologists will be especially able to appreciate the points here made, as to the necessity for absolute accuracy in the labelling of specimens.

The life zones recognized by the author in Colombia are four in number, being, in ascending order, Tropical, Subtropical, Temperate, and Paramo, the last mentioned being a term "locally applied to any treeless region lying above 10,000 feet". Some important conclusions as regards the existing fauna of the region are as follows: That the birds of every zone above the tropics have been derived from a lower level; that the Temperate zone of the Colombian Andes reaches sea level farther south in South America and that its life is derived in part by zonal, in part by latitudinal extension and is

more recent than that of the Subtropical zone; that the Paramo zone reaches sea level still farther south and that its life is derived by latitudinal extension and is more recent than that of the Temperate zone; and that the present trend of the distribution of life upon the continent is northward, few boreal species having entered Colombia in recent geologic times. In other words, the hypothesis advanced is that the enormous mountain ranges forming so large a part of the Colombian region arose as a gradually increasing elevation forced upwards from a tropical base, the lofty summits with their necessarily cooler climate being populated by the latitudinal extension of the range of species from regions to the northward and to the southward having similar climates, and also by "altitudinal extension as the pressure of life from immediately contiguous regions below forced species upward, the more adaptable of which survived".

Three of the four zones are divided into faunal areas. In the Tropical zone five are recognized, as follows: Colombian-Pacific, Cauca-Magdalena, Caribbean, Orinocan, Amazonian. In the subtropical zone there are two, West Andean and East Andean. The Temperate zone has strongly marked humid and arid divisions but does not appear to be otherwise divided. The Paramo is uniform in character.

Each of these zonal and faunal divisions is treated in detail, the points made being illustrated with a wealth of half-tones, maps, and diagrams, and tables of bird species. Not the least interesting and instructive of these graphic features are the maps illustrating the ranges of representative species.

Part one (pp. 3-169) is devoted to this descriptive and philosophic matter. Part two, with some introductory and explanatory matter, largely relative to classification and nomenclature, contains the systematic list of the species concerned. For the most part the comments on each are extremely brief, frequently a mere statement of localities, but even so, the 1285 species and subspecies included necessarily make a rather bulky volume.

The whole report is one of intense interest, and the facts and theories concerned are presented in a most attractive and convincing manner. The volume fairly teems with suggestions of problems to be followed up, in addition to the many ingenious and satisfactory explanations advanced for conditions as encountered. While naturally much

of this does not touch directly upon work in North America, still one comes across occasional statements of fact or opinion that have a bearing upon our own studies as well as generalizations that are applicable everywhere in faunal research.

It is interesting to note that, quite different from conditions in North America, no evidence of altitudinal migration in any species was obtained in this country of strongly contrasting mountains and valleys. The explanation of this is doubtless to be found in the equable climatic conditions of each zone the year through. It is not so easy, however, to find an explanation of the fact that the many North American species encountered here in their winter home, pay absolutely no attention to faunal or zonal boundaries. This is decidedly at variance with conditions along the Pacific Coast of the United States, where the ranges of winter visitants from Alaska and northwestern Canada are strongly influenced by local climatic conditions.

Of the many North American birds wintering in or passing through Colombia nearly all are eastern species. The Western Wood Pewee (*Myiochanes richardsoni*) is mentioned as the only bird of the western United States, but the systematic list of species also includes *Chordeiles acutipennis texensis* and *Myiodynastes luteiventris*, both of which occur in that region, whether or not the Colombian migrants individually hail from within our boundaries. It seems curious to read of a subspecies of our familiar Black Phoebe as "an inhabitant of the Tropical Zone but working up the streams to the lower border of the Subtropics", for one would expect it rather amid temperate zone surroundings.

Dr. Chapman has much to say regarding classification and nomenclature, as well as the treatment of genera and subspecies, and what he says is clearly and vigorously expressed and worthy of careful consideration. In his strong advocacy of personal field work in a study of this sort he assumes a position that will certainly not be combated by any active western ornithologist. In fact it is a little difficult at this day to realize the need of argument to uphold such a self-evident proposition.

It is but a thankless task to pick out minor errors in a work of such high general standard, and really the volume under discussion forms a most unprofitable field for such search. As an example of how errors creep in despite most careful proof reading,

however, attention may be called to the caption explanatory of fig. 21 (opposite p. 610), where there is evidently a mix-up of some sort. Then too, as regards the sentence at the foot of page 178, summing up the evidence in a peculiarly interesting line of argument, while the point the author wishes to make is evident enough, the wording is so vague as to bear an interpretation almost contrary to the meaning that it is intended to convey.—H. S. SWARTH.

ROBERT CUSHMAN MURPHY'S "NATURAL HISTORY OBSERVATIONS FROM THE MEXICAN PORTION OF THE COLORADO DESERT" (Abstract of Proceedings, Linnaean Society of New York, nos. 24-25, 1917, pp. 43-101, pls. I-VI) is well worth the reading by anyone who is interested in the desert, be he traveller or naturalist. Murphy's "Narrative" of his month's trip south from Calexico in search of antelope for the Brooklyn Museum will furnish much information of value to the prospective visitor to that or any similar region; while the more or less blasé frequenter of desert country will have his memories pleasingly vivified by the accurate and lively description of day-by-day experiences. Some of the comments, such as those upon the psychology of the burro, and the fearsomeness of rattlesnakes, verge upon the naïve, but usually save themselves by reason of refreshing allusions, often of keen aptness. One's first experience in a new land is certainly the one to take advantage of in recording impressions, and Murphy proves himself to have realized this to good purpose—aided by a ready pen.

Ornithologically, we find that there are many good field observations scattered through the narrative, as also in the "Annotated List of the Birds" (pp. 80-100); for example, upon the apparent ability of the Desert Quail to go entirely without water. This seems to be a really new idea, and should be followed up by others in a position to ascertain the facts. The "List" numbers 134 species and is based not only upon the author's own observations but also on a previous paper by Stone and Rhoads (Proc. Acad. Nat. Sci., Phila., 1905, pp. 676-690). The only serious criticism we can make of Murphy's work is that he should have taken Rhoads' sight determinations at face value and thus perpetuated a lot of exceedingly doubtful records (see CONDOR, VIII, 1906, p. 78). Also why not as well have taken into account W. W. Price's article on "Some Winter Birds of the Lower Colorado Valley" (*Bull. Cooper Orn. Club*, I,

1899, pp. 89-93), which covered nearly the same region?—J. GRINNELL.

BIRDS OF AMERICA; Editor-in-Chief, T. GILBERT PEARSON, National Association of Audubon Societies. Consulting Editor, John Burroughs. Managing Editor, George Gladden. Associate Editor, J. Ellis Burdick. Special Contributors, Edward H. Forbush, William L. Finley, Herbert K. Job, L. Nelson Nichols. Artists, L. A. Fuertes, R. B. Horsfall, R. I. Brasher, Henry Thurston. Nature Lovers Library [vols. I-III]. The University Society Inc.; New York [1917]; 4to, vol. I, pp. xviii+272; vol. II, pp. xiv+271; vol. III, pp. xviii+289; pls. five+106, numerous half-tone illustrations and some line drawings, all these being scattered throughout the three volumes. Issued about November 1, 1917.

I suppose there is no copyright on the title "Birds of America". Even so, it seems a sacrilege that this distinctive title, once used with authority, should be now appropriated for a work which falls far behind what such a title ought to cover. In the first place, the present book deals with any approach to adequacy only with birds of the eastern half of North America north of the Mexican line; and in the second place, the treatment is at best, save pictorially, superficial and far from "complete", though this word is used rather blatantly in the claims for the work set forth in the Preface, Introduction, and announcements. From a strictly scientific point of view I believe that this work, instead of advancing the previous standard of ornithological output, or even maintaining it, tends to lower it.

It is from the western viewpoint that the book here under review is most seriously at fault. The text, almost wherever it deals with exclusively Californian or western birds, is characterized by inconsequential verbiage where it is not actually misleading or even erroneous. I will cite some specific illustrations.

The Mountain Chickadee, so widespread from the Rocky Mountains westwardly, is dismissed (vol. III, p. 212) with one paragraph as "very similar" to its "eastern relative"! The account of our common California Brown Towhee (vol. III, p. 61, under "Cañon Towhee") is simply nonsense. The Abert Towhee (same volume, p. 62) is accorded just six lines of 10-point comment, the first sentence of which is: "Despite the fact that the Abert's Towhee is the largest of the plain Towhees he is extremely shy."



Both parts of this statement are wrong, and the correlation implied is doubtful. The Lucy Warbler is stated (vol. III, p. 119) to have been observed by "Dr. Gambel" on "Santa Catalina Island"!

Concerning the Bell Sparrow (vol. III, p. 49) the implication in regard to habitat is erroneous. The Gray Vireo is disposed of (vol. III, p. 111) in a text mention under "Bell's Vireo" as if it were a subspecies of that bird or else very similar in habits and structure—which it is most emphatically *not*. It is to be noted in this connection that the whole subspecific concept is botched. Why *can't* mention of subspecies be omitted altogether from books intended for "popular" use!

After the unmodified claims of completeness, we are surprised to find that several western species are left out altogether, such as Baird Sparrow, Plain Titmouse, and Marbled Murrelet. Even whole genera are omitted, namely *Catherpes* (the Canyon Wrens), *Aimophila* (Rufous-crowned Sparrow and its relatives), and *Cardellina* (Red-faced Warbler).

We are told in the Preface that the "technical" parts of the "Birds of America" (descriptions and distributions) are taken from Ridgway's *Birds of North and Middle America*, but modified so as to avoid the use of technical terms. Scrutiny of some of this "technical" matter, thus credited to Ridgway, shows it to be very much abbreviated and sometimes "adapted" to an extent that we feel sure Ridgway would hardly care to accept responsibility for. In a number of places we meet with most astonishing lapses in geography. For example (vol. II, p. 223), it is stated that "in southern California two local forms of this Jay [California Jay] are found"—"Belding's" and "Xantus's." Here, southern and Lower California are obviously confused.

I note that the name of "Walter Kenrick Fisher, Ph. D.", of Stanford University, is included in the rather large "Advisory Board" listed at the front of volume I. Yet it cannot for a moment be supposed that this acute ornithologist lent his approval to the character in detail of the western ornithology included in this work. This illustrates another way in which efforts are made by publishers to secure an appearance of scientific authenticity for their books.

I must now, in fairness, say that part of the western material quoted—practically the whole work is a compilation—notably where specifically credited to Mrs. Bailey and some of that to Finley, is unquestiona-

bly creditable. Also it is very likely that a far greater proportion of the eastern contributions are correct as to fact than of western; for we see there frequent repetitions of such names as Chapman, Forbush and Job.

As to illustrations, it is obvious that access to the excellent colored plates by Fuertes, which originally appeared in Eaton's *Birds of New York*, was the initial motive of the present enterprise. There are 106 of these, and also five really very good colored plates of birds' eggs by Thurston. In addition, there is a plethora of half-tones, these including some of the best photographic work of Finley and Bohlman, Job, and A. A. Allen. I fail to see why the editors and publishers could not have stopped here, instead of adding a great many more photographs of ghastly mounted birds, and still more reproductions from exceedingly poor drawings. Among the latter, the pictures of Verdin, Wren-tit and Pipit (vol. III, pp. 216, 218, 170) are to my mind merely painful caricatures. Still, in the aggregate, the illustrations are good and the quantity is amazing. These will attract and hold the attention of the average layman irrespective of the merits, or demerits, of the work otherwise.

Returning again to the text, I wonder why it is that scientific accuracy cannot more often enter into "popular" works on ornithology. Must we accept the apparent rule that "popular", that is, non-technical, ornithology cannot at the same time be thoroughly scientific? My own belief is that, on the contrary, this *can* be attained, and it *should* be achieved, by just such sponsors of popularized ornithology as the National Association of Audubon Societies, with the great field of interest this organization has created and is so fast extending.

Of course there are ten thousand "audubonites" who will accept the present offering as the gospel, to one critical ornithologist who is in a position to detect its serious faults. It may even be averred that inaccuracies in detail count for nothing as compared with the main purpose of securing and holding popular attention and thereby spreading the propagandum of bird-protection and esthetic appreciation of bird-life. Perhaps. If so, my conviction is growing that the term "scientific" must be absolutely withheld from application to literature in which the publishers' aims are primarily to secure popular consumption. Of course it is a feature of added recommendation (and hence of commercial value) if people can be



led to *think* they are absorbing "scientific" matter. But it seems to me that this claim cannot be made honorably by any person or organization, unless the greatest possible care has been expended to insure scientific accuracy *in fact*. This should be the primary concern, rather than be secondary to speed of publication and length of subscription list.

Better one thoroughly good book every ten years, than ten poor books discreditable to the science for which it is aspired to serve as popular, interpreter. Popularization of a science is a worthy service, but it requires rare fidelity as well as exceptional talent.—J. GRINNELL.

## MINUTES OF COOPER CLUB MEETINGS

## NORTHERN DIVISION

OCTOBER.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, Berkeley, California, on Thursday evening, October 18, at eight o'clock. Dr. Evermann was in the chair, and the following members were present: Messrs. Bryant, Carriger, De Groot, Evermann, Grinnell, Lastreto, Mailliard, Wheeler and Wright; Mesdames Allen, Ferguson, Grant, Grinnell, Head, Knappen, Newhall, Schlesinger. Visitors: Mr. Austin, Mr. Schlesinger, Mesdames Bamford, Lenfest and Wheeler. The minutes of the September meeting were read and approved, and the August and September minutes of the Southern Division were read.

Mr. Carl Lien, proposed before the Southern Division, was elected to membership, and the following were proposed for membership: Mrs. G. L. Bamford, Oakland, by Miss Margaret Wythe, and Mr. Albert J. Kirn, Paola, Kansas, by H. W. Carriger; also three names from the August and September minutes of the Southern Division.

After a number of informal notes on migration offered by different members present, Mr. Dudley S. De Groot gave a talk on "The Breeding Birds of the Coronado Islands". Adjourned.—AMELIA S. ALLEN, *Secretary*.

NOVEMBER.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, Berkeley, November 15, 1917, at eight o'clock. The meeting was called to order by President Evermann, with the following members and friends in attendance: Members: Messrs. Bryant, Carriger,

Dixon, Grinnell, Hansen, Kibbe, Labarthe, Lastreto, Smythe, Squires, Wheeler and Wright; Mesdames Allen, Culver, Ferguson, Grinnell, Gunn, Kibbe, Kluegel, Knappen, Lueddemann, Meade, Schlesinger and Smythe; Visitors: Mrs. Bamford, Mrs. Labarthe and Mr. Schlesinger.

The minutes of the October meeting were read and approved. Mrs. G. L. Bamford and Mr. Albert J. Kirn, whose names were proposed at the October meeting, were elected to membership, as were also Capt. Gosse, Mr. Leach and Miss Young, whose names were sent by the Southern Division for approval. The resignation of Mrs. H. C. Bryant was accepted. Mr. Squires rendered an oral report of the work of his committee in its efforts to insure the protection of non-injurious birds in Golden Gate Park.

Professor Grinnell, the speaker for the evening, then described the Great Basin Avifauna as represented in California. Adjourned.—AMELIA S. ALLEN, *Secretary*.

DECEMBER.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, Berkeley, on the evening of December 20, at eight o'clock. Dr. Evermann called the meeting to order. The following members were in attendance: Messrs. Bryant, Carriger, Davis, Dixon, Evermann, Grinnell, Hansen, Heller, Kibbe, Labarthe, Lastreto, Leach, Mailliard, Snyder, Swarth, Wheeler and Wright; Mesdames Allen, Grant, Kibbe, Kluegel, Meade, Parsons and Schlesinger. Visitors present were Miss Newlin, Mrs. Labarthe, Mrs. Wheeler, Professor Hall and Mr. Schlesinger.

The name of Mr. H. Van Straaten, Oakland, was proposed by Dr. Frederick B. Davis. Mr. Lastreto appealed to Club members to support Mr. Dawson in his efforts to complete "The Birds of California". Mr. Lastreto also reported for the committee appointed to investigate the effect upon sea birds of the presence of oil on the water to the effect that certain of the oil companies have agreed to instruct their captains not to discharge oil from their vessels.

Nominations for officers for the ensuing year resulted in the following names being placed before the Club: President, Dr. Barton W. Evermann; Vice President, Professor J. O. Snyder; Secretary, Mrs. A. S. Allen; representative to the Associated Societies for the Conservation of Wild Life, Mr. A. S. Kibbe.

A letter from the Audubon Association of the Pacific asking that the Cooper Club

appoint a member to cooperate with their committee, which had been appointed to investigate and report upon the destruction of bird life by the light-houses on the Pacific Coast, was read, and the appointment, duly authorized, was left to the Chair.

On the suggestion of the President, it was moved and carried that the Executive Committee of the Northern Division enter into communication with the Executive Committee of the Southern Division to arrange for representation on the program at the meeting of the Western Society of Naturalists, to be held in connection with the next meeting of the Pacific Association for the Advancement of Science.

With the concurrence of Professor Snyder, the program announced for the evening was postponed, and the Club was entertained by a talk by Mr. Edmund Heller, field naturalist of the American Museum of Natural History, on his recent collecting trip in the Orient. His description of the lack of insectivorous birds in Japan, with no visible detrimental effects upon the crops or forests, led to a discussion of the real explanation of this seeming discrepancy. Adjourned.—AMELIA S. ALLEN, *Secretary*.

#### SOUTHERN DIVISION

NOVEMBER.—Regular monthly meeting of the Southern Division, Cooper Ornithological Club, was held at 8:00 P. M. at the Museum of History, Science and Art. President Miller officiated. Members present were Messrs. Bishop, Brouse, Dickey, Enoch, Hannaford, Holland, Howell, Granville, Lamb, Owen, Rich, John Robertson, Trenor, Willett, and Wyman; and Mrs. E. F. Husher. Visitors were Mrs. Bishop, Miss Brouse, and Mr. Volney Enoch.

Minutes of the August and September meetings were read and approved, followed by reading of minutes of the Northern Division for the same months. On proper motion, the Secretary was instructed to cast an electing ballot for Pauline Rodgers Young, Canille, Arizona, whose name was proposed at the previous meeting. New names were proposed as follows: Grace McCormac French, Carlton, Oregon, by Mrs. R. Bruce Horsfall; Alfred M. Bailey, Louisiana State Museum, New Orleans, Louisiana, by Geo. Willett; W. P. Stormont, Los Angeles, by J. Eugene Law; James George French, Victoria, B. C., Canada; E. A. Doolittle, Painesville, Ohio; and John Williams, Iowa City, Iowa, by W. Lee Chambers; Frederick Greenwood, Spokane, Washington, by Walter P. Taylor.

On motion by Dr. Rich, seconded by Mr. Willett, the members approved the action of the Secretary in sending out postcard notices covering stated meetings for the ensuing six months.

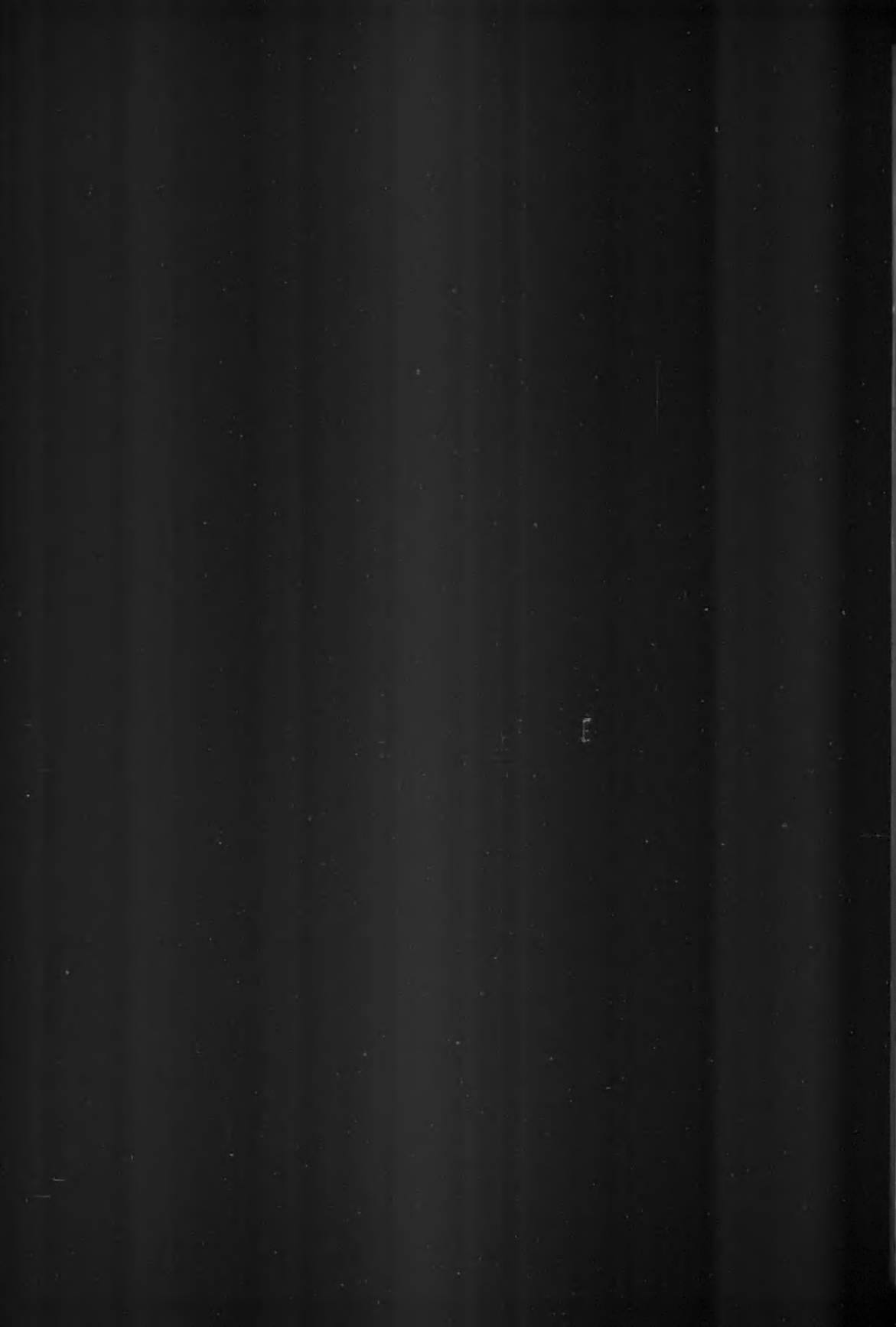
Followed considerable discussion of the troubles of bird and egg collectors in the state of Utah. Dr. Bishop told recent collecting experiences in the San Bernardino Mountains. Inspection of several trays of owl skins proved interesting to all. Adjourned.—L. E. WYMAN, *Secretary*.

DECEMBER.—Regular monthly meeting of the Southern Division, Cooper Ornithological Club, was held at 8:00 P. M. at the Museum of History, Science and Art. President Miller occupied the chair, with the following members in attendance: Messrs. Bishop, Brown, Chambers, Daggett, Esterly, Hannaford, Holland, Howell, Enoch, Law, Rich, Stormont, Wall, Willett, and Wyman; Mrs. Husher and Mrs. Law. Mrs. Bishop and Mr. Anderson were visitors.

Minutes of the November meeting were read and approved. On proper motion the Secretary was instructed to cast an electing ballot for the following names, presented at the last meeting: Frederick Greenwood, John Williams, E. A. Doolittle, James George French, W. P. Stormont, A. M. Bailey, and Grace McCormac French; also Mr. and Mrs. W. H. Smythe, and Augustus S. Kibbe, proposed by the Northern Division. New names presented were: Volney A. Enoch, Tropic, by L. E. Wyman; Thomas D. Burleigh, Pittsburg, Pa., by W. Lee Chambers; and Mrs. G. L. Bamford, Oakland, and Albert J. Kirn, Paola, Kansas, from the Northern Division. Dr. Rich moved that nominations, for the coming election, be made from the floor. Carried.

Business ended, the usual informal discussions followed. Mr. Howell read letters from a man who claimed to have found a "red gull" dead on the beach—and sent some poorly dyed feathers as evidence. Dr. Bishop related recent experiences collecting birds in the desert, while Mr. Howell told of collecting mammals on the same trip. Judge Wall reported finding a nest of young meadowlarks in December; and Mr. Law told of a recent collecting and hunting trip in the Mogollon Mountains of New Mexico, also of receiving Thick-billed Parrots in the flesh from Arizona. Inspection of several trays of woodpeckers, kingfishers, etc., completed the evening. Adjourned.—L. E. WYMAN, *Secretary*.





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## AVIFAUNA No. 12

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127 pages; published June 30, 1917

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